RSTS/E

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THE SOFTWARE DISPATCH

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RSTS/E SOFTWARE DISPATCH

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The RSTS/E Software Dispatch complements the **Software Dispatch Review for RSTS/E V6C-03.** It publishes new and revised Software Product Descriptions, programming notes, software problems and solutions, and documentation corrections. Much of the material is developed from answers to customer Software Performance Reports (SPRs) significant to the general audience, and is printed here to establish a reference notebook for the customer's software interests.

PRODUCTS SUPPORTED in the RSTS/E SOFTWARE DISPATCH

APL-11 V1
ASSIST-11 V1
BASIC-PLUS-2 V1
BASIC-PLUS-2/RMS-11K V1
COBOL-11 V3
CTS11/RSTS/E V1.1
CTS-500 V3
CTS-500-2780 V3
DATATRIEVE-11 V1
DECAL V2
DECnet/E V1
DIBOL-11/DECFORM V1, V4
DMS-500 V2
FORTRAN IV/RSTS-E V2
WISE V1
PLOT11-RSTS/E V1.1
RMS-11K V1.5
RPG II V8.02
RSTS/E V6C
RSTS-E/2780 V3
SORT-11 V2
VT55 BASIC-PLUS-2 V1

DISTRIBUTION

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Eleanor F.Hunter, Editor
Roxanne Alexander, Associate Editor

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RSX
TYPESET-8
TYPESET-11

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USER LETTER
Jan Fair, SPR Administration

Customers (and others) have brought to our attention the need for additional information regarding SPR service, particularly as it involves SPR Administration. The following represents our attempt to fulfill this need. Your comments and suggestions are most welcome.

HOW TO MAKE THE BEST USE OF SPR FORM

What WE Can Do for YOU

1. Blank SPR forms are available upon request in the desired quantities through SPR Administration (P.O.Box F) and your local office/SPR Center.

2. Copies of the SPR acknowledgment and answer are sent to the appropriate DIGITAL Office/SPR Center for their information.

3. SPRs marked *SOFTWARE ERROR or INQUIRY* will have a response for supported Category A and B products. These SPRs should refer to suspected deficiencies in the software.

4. SPRs marked *FYI or SUGGESTION* are forwarded to the pertinent software group for information purposes, and are responded to at their discretion.

5. SPRs marked *DOCUMENTATION ERROR* should report those problems dealing with software manuals or newsletters, and will be forwarded to the pertinent software group.

What YOU Can Do For US

1. Customer Name and Address and Problem Statement should always be typed or printed clearly.

2. SPRs should not be used for problems concerning software policy, software distribution, or hardware. Your local office should be contacted in these cases.

3. It would be most helpful to all concerned, if problems with patches are reported as soon as possible.

4. For security SPRs, it is imperative that the *DO NOT PUBLISH box* be marked.

5. It would be helpful if tapes submitted with SPRs are labeled (track and density), and have a directory attached.

6. Should you ever receive an unacceptable SPR response, please contact us or the appropriate SPR Center so that the response may be readdressed.

7.2 Commonly Used System Programs (CUSPs) Patch Levels

This report reflects the current Version/Edit level of all of the Commonly Used System Programs (CUSPs) supplied as part of the standard RSTS/E V06C-03 System Library Programs release.

System Utilities Package

BUILD	V06C-03	DIRECT	V06C-03ABCD	DISPLY	V06C-03AB	VT05	V06C-03
VT50	V06C-03	DSKINT	V06C-03	GRIPE	V06C-03	INIT	V06C-03A
INUSE	V06C-03	LOGIN	V06C-03	LOGOUT	V06C-03A	MONEY	V06C-03
ODT	V06C-03A	PLEASE	V06C-03	PRIOR	V06C-03	QUOLST	V06C-03
REACT	V06C-03	REORDR	V06C-03A	SHUTUP	V06C-03	SWITCH	V06C-03
SYSCAT	V06C-03	SYSTAT	V06C-03AB	TALK	V06C-03	TTYSET	V06C-03
UMOUNT	V06C-03ABC	UTILTY	V06C-03	UTILT1	V06C-03AB		

Data Manipulation Package

BPCREF	V06C-03A	BPCRF1	V06C-03	COPY	V06C-03	EDIT	V06C-03A
EDITCH	V06C-03A	FILCOM	V06C-03A	FLINT	V06C-03ABC	FLX	V06C-03A
MAKRTS	V06C-03	PIPSML	V06C-03	PIPEXT	V06C-03AB	PMDUMP	V06C-03A
RUNOFF	V06C-03AB						

Error Control Package

ANALY1	V06C-03	ANALYS	V06C-03	ERRBLD	V06C-03	ERRCPY	V06C-03
ERRDET	V06C-03A	ERRDIS	V06C-03	ERRINT	V06C-03		

Backup Package

BACCOM	V06C-03AB	BACCON	V06C-03AB	BACDEL	V06C-03	BACDIR	V06C-03AB
BACDMP	V06C-03	BACDSK	V06C-03A	BACENT	V06C-03A	BACFRM	V06C-03ABCDE
BACLAB	V06C-03	BACLOD	V06C-03A	BACLST	V06C-03	BACMNT	V06C-03ABCDE
BACPRM	V06C-03	BACKTO	V06C-03AB	BACKUP	V06C-03ABC		

Spooling and Operator Services Package

OPSER	V06C-03	OPSRUN	V06C-03AB				
QUE	V06C-03ABCDEFG	QUEMAN	V06C-03	QUMRUN	V06C-03AB		
CHARS	V06C-03	SPOOL	V06C-03	SPLIDL	V06C-03	SPLRUN	V06C-03A
BATDCD	V06C-03	BATCH	V06C-03	BATIDL	V06C-03A		
BATDEC	V06C-03ABCDEFG	BATRUN	V06C-03ABCD				

User Environment Test Package

UETP	V06C-03A	ACCTST	V06C-03A	AC0TST	V06C-03A	AC1TST	V06C-03A
AC2TST	V06C-03A	AC3TST	V06C-03A	AC4TST	V06C-03A	AC5TST	V06C-03A
DBEXER	V06C-03	DPEXER	V06C-03	DREXER	V06C-03	DMEXER	V06C-03
DSEXER	V06C-03	DFEXER	V06C-03	DKEXER	V06C-03	DXEXER	V06C-03
MTEXER	V06C-03	DTEXER	V06C-03	CPEXER	V06C-03	CREXER	V06C-03
PPEXER	V06C-03	PREXER	V06C-03	KBEXER	V06C-03	LPEXER	V06C-03
SCRIPT	V06C-03	SCRPTB	V06C-03	CVTSCP	V06C-03	OPTPRM	V06C-03
OPTPRK	V06C-03	OPTPRB	V06C-03	TDLSRT	V06C-03	TDLXQK	V06C-03
TDLMQK	V06C-03	TDLOQK	V06C-03	TDLSQK	V06C-03A	CRFILE	V06C-03A
TAPSRT	V06C-03	TAPSRU	V06C-03	DECMRG	V06C-03A	VERIFY	V06C-03
RANMAK	V06C-03	JSTATS	V06C-03	DSTATS	V06C-03	CPUTST	V06C-03
FILMIN	V06C-03	CRUDAT	V06C-03	FLOPPY	V06C-03A	CRDATA	V06C-03A
BUILDR	V06C-03A	PKBSNE	V06C-03				

Automated Patching Facility Package

AUTOED	V06C-03	CPATCH	V06C-03	PATCPY	V06C-03	PBUILD	V06C-03ABC

DECnet/E Utilities

NCROOT	V06C-03A	NETFNC	V06C-03	NCP	V06C-03A	NCU	V06C-03AB
NIP	V06C-03	LSN	V06C-03	TLK	V06C-03A		

4.Ø Notebook Maintenance

Each month you should take apart the Software Dispatch and file the new articles by sequence number in your notebook. If an article is a replacement, discard the superseded article. Each article addresses a single topic and its title gives the symptom or a one-line problem description. This information appears at the top of each page. For example:

RSTS/E Software Dispatch, April 1978

RSTS/E VØ6C-Ø3 Seq 1Ø.12.3 O
System Utilities Package
LOGIN Page 1 of 2

LOGIN CAN PRINT A MESSAGE FOR SPECIFIC ACCOUNTS - OPTIONAL LOGIN PATCH

The System COMPONENTS.SUBCOMPONENTS are listed in Section 4.1. Articles for each subcomponent are assigned a sequence number which uniquely identifies the article within that component category. As each new article is published for a sub-component, it is assigned the next higher sequence number. The sequence numbers are defined as COMPONENT.SUBCOMPONENT.ISSUE number. An example is the 1Ø.12.3 shown in the upper right corner of the sample heading. Replacement articles are noted as such.

Articles for subordinate software that is not unique to RSTS/E are to be filed by product and then component. Articles are sequenced by component after this sorting process. In some cases, there are so few articles that they are sequenced only by product. Missing sequence numbers indicate problems which only apply to other operating systems. The cumulative index is published in the Dispatch to help you maintain the notebook for the complete RSTS/E system.

A flag will appear after the sequence number:

M = Mandatory patch
O = Optional patch (as in the sample heading)
R = Restriction
N = Note

4.1 RSTS/E COMPONENT.SUB-COMPONENT Assignments

The COMPONENT.SUB-COMPONENT numbers outlined below appear on articles to be filed in Section 7.0 of this notebook.

RSTS/E MONITOR

1.0 Initialization
- 1.1 INIT.SYS Program Patches
- 1.2 INIT.SYS Program Notes

2.0 System Generation
- 2.1 SYSGEN Patches
- 2.2 SYSGEN Notes

3.0 Executive
- 3.1 Monitor Patches
- 3.2 Monitor Notes
- 3.3 Terminal Service Patches
- 3.4 Terminal Service Notes
- 3.5 File Processor Patches
- 3.6 File Processor Notes
- 3.7 Device Driver Patches
- 3.8 Device Driver Notes

4.0 BASIC-PLUS
- 4.1 BASIC-PLUS Patches
- 4.2 BASIC-PLUS Notes
- 4.3 Programming Hints
- 4.4 Math Packages
- 4.5 Matrix Functions
- 4.6 PRINT-USING
- 4.7 Record I/O
- 4.8 Virtual Core
- 4.9 String Arithmetic

5.0 RSTS/E 2780 Device Driver
- 5.1 2780 Device Driver Patches
- 5.2 2780 Device Driver Notes

6.0 DECnet/E Package
- 6.1 DECnet/E Patches
- 6.2 DECnet/E Package Notes

7.0 (Reserved)

8.0 (Reserved)

9.0 (Reserved)

RSTS/E UTILITIES

10.0 System Utilities Package

10.1 Package Notes
10.2 BUILD Utility
10.3 DIRECT
10.4 DISPLY
10.5 VT05 Adaptation of DISPLY
10.6 VT50 Adaptation of DISPLY
10.7 (Reserved)
10.8 DSKINT
10.9 GRIPE
10.10 INIT
10.11 INUSE
10.12 LOGIN
10.13 LOGOUT
10.14 MONEY
10.15 ODT
10.16 PLEASE
10.17 PRIOR
10.18 QUOLST
10.19 REACT
10.20 REORDR
10.21 SHUTUP
10.22 SYSCAT
10.23 SYSTAT
10.24 TALK
10.25 TTYSET
10.26 UMOUNT
10.27 UTILTY
10.28 UTILT1
10.29 SWITCH
10.30 VT55
10.31 DEMO55

11.0 Data Manipulation Package

11.1 Package Notes
11.2 COPY
11.3 EDIT
11.4 EDITCH
11.5 FILCOM
11.6 FLINT
11.7 PIPSML
11.8 PIPEXT
11.9 RUNOFF
11.10 BPCREF
11.11 BPCRF1
11.12 PMDUMP
11.13 FLX
11.14 MAKRTS

12.0 Error Control Package
- 12.1 Package Notes
- 12.2 ANALY1
- 12.3 ANALYS
- 12.4 ERRCPY
- 12.5 ERRDET
- 12.6 ERRDIS
- 12.7 ERRINT
- 12.8 ERRBLD

13.0 Backup Package
- 13.1 Package Notes
- 13.2 BACCOM
- 13.3 BACCON
- 13.4 BACDEL
- 13.5 BACDIR
- 13.6 BACDMP
- 13.7 BACDSK
- 13.8 BACENT
- 13.9 BACFRM
- 13.10 BACLAB
- 13.11 BACLOD
- 13.12 BACLST
- 13.13 BACMNT
- 13.14 BACPRM
- 13.15 BACKTO
- 13.16 BACKUP

14.0 Spooling and Operator Services Package
- 14.1 Package Notes
- 14.2 OPSER
- 14.3 OPSRUN
- 14.4 QUE
- 14.5 QUEMAN
- 14.6 QUMRUN
- 14.7 CHARS
- 14.8 SPOOL
- 14.9 SPLIDL
- 14.10 SPLRUN
- 14.11 BATDCD
- 14.12 BATCH
- 14.13 BATIDL
- 14.14 BATDEC
- 14.15 BATRUN

15.0 User Environment Test Package
- 15.1 Package Notes
- 15.2 UETP
- 15.3 ACCTST
- 15.4 AC0TST
- 15.5 AC1TST
- 15.6 AC2TST
- 15.7 AC3TST
- 15.8 AC4TST
- 15.9 AC5TST
- 15.10 (Reserved)
- 15.11 DBEXER
- 15.12 DPEXER
- 15.13 DREXER
- 15.14 DMEXER

15.15 DSEXER
15.16 DFEXER
15.17 DKEXER
15.18 DXEXER
15.19 MTEXER
15.20 DTEXER
15.21 CPEXER
15.22 CREXER
15.23 PPEXER
15.24 PREXER
15.25 KBEXER
15.26 LPEXER
15.27 SCRIPT
15.28 SCRPTB
15.29 CVTSCP
15.30 OPTPRM
15.31 OPTPRK
15.32 OPTPRB
15.33 TDLSRT
15.34 TDLXQK
15.35 TDLMQK
15.36 TDLOQK
15.37 TDLSQK
15.38 CRFILE
15.39 TAPSRT
15.40 TAPSRU
15.41 DECMRG
15.42 (Reserved)
15.43 VERIFY
15.44 RANMAK
15.45 JSTATS
15.46 DSTATS
15.47 CPUTST
15.48 FILMIN
15.49 CRUDAT
15.50 FLOPPY
15.51 CRDATA
15.52 BUILDR
15.53 PKBSNE
15.54 Script files

16.0 System Management Guidelines

17.0 Automated Patching Facility Package
17.1 Package Notes
17.2 PATCPY
17.3 PBUILD
17.4 CPATCH
17.5 AUTOED
17.6 ONLPAT.SAV

18.0 (Reserved)

RSTS/E DOCUMENTATION

19.0 Documentation

19.1	Documentation Directory	DEC-11-ORDAA-B-D
19.2	RSTS/E System Generation Manual	AA-2669C-TC
19.3	RSTS/E System Manager's Guide	DEC-11-ORSMD-B-D(+DN1)
19.4	RSTS/E System User's Guide	DEC-11-ORSUB-A-D(+DN1)
19.5	BASIC-PLUS Language Manual	DEC-11-ORBPB-B-D
19.6	RSTS/E Programming Manual	DEC-11-ORPMA-B-D(+DN1)
19.7	RSTS/E RUNOFF User's Guide	DEC-11-URUNA-B-D
19.8	RSTS/E Text Editor Manual	DEC-11-UTEMA-A-D
19.9	RSTS/E V06C-03 Release Notes	AA-5246B-TC
19.10	RSTS/E Pocket Guide	DEC-11-ORFCA-A-D
19.11	(Reserved)	
19.12	RSTS/E User Environment Test Package	AA-5704A-TC
19.13	RSTS/E Task Builder Reference Manual	AA-5072A-TC
19.14	Introduction to RMS-11	AA-0001A-TC
19.15	RMS-11 MACRO Programmer's Reference Manual	AA-0002A-TC
19.16	RSTS/E RMS-11 Utilities User's Guide	AA-0003B-TC
19.17	DEC Editor Reference Manual	AA-5789A-TC
19.18	PDP-11 MACRO-11 Language Reference Manual	AA-5075A-TC
19.19	RSTS/E DECnet/E System Manager's Guide	AA-5666A-TC
19.20	RSTS/E DECnet/E User's Guide	AA-5667A-TC
19.21	RSTS/E DECnet/E Release Notes	AA-D426A-TC

RUN-TIME SYSTEMS SUPPORT

20.0 (Reserved)

21.0 RSX Emulator Package
- 21.1 Package Notes
- 21.2 (Reserved)
- 21.3 RSX.RTS
- 21.4 TKB.TSK
- 21.5 MAC.TSK
- 21.6 LBR.TSK
- 21.7 SYSLIB.OLB
- 21.8 RSXMAC.SML
- 21.9 PAT.TSK
- 21.10 EDT.TSK

22.0 RT-11 Emulator Package
- 22.1 Package Notes
- 22.2 RT11.RTS
- 22.3 CREF.SAV
- 22.4 EDIT.SAV
- 22.5 HOOK.SAV
- 22.6 LIBR.SAV
- 22.7 LINK.SAV
- 22.8 LOGIN.SAV
- 22.9 LOGOUT.SAV
- 22.10 MACRO.SAV
- 22.11 PAT.SAV
- 22.12 PATCH.SAV
- 22.13 PIP.SAV
- 22.14 SILUS.SAV
- 22.15 SYSBAT.SAV
- 22.16 SYSGEN.SAV
- 22.17 UTILTY.SAV

4.2 Subordinate Software

23.0 FORTRAN IV V2.0
- 23.1 Package Notes
- 23.2 COMPILER
- 23.3 OTS
- 23.4 Run-Time System

24.0 DMS-500 V02
- 24.1 Package Notes
- 24.2 DMSUTL
- 24.3 DMSFSS
- 24.4 DMSISR
- 24.5 DMSISC
- 24.6 DMSRAR
- 24.7 DMSISA
- 24.8 DMSRAA
- 24.9 DMSFSU
- 24.10 DMSISO
- 24.11 DMSRAO
- 24.12 DMSFSX
- 24.13 IAMGEN
- 24.14 IAMCRI
- 24.15 IAMDMP
- 24.16 IAMVFY
- 24.17 IAMPRI
- 24.18 IAMFNS
- 24.19 DSORT
- 24.20 DSORTD
- 24.21 DSORTF
- 24.22 DSORTX
- 24.23 DSORTS
- 24.24 DSORTM
- 24.25 DSORTO
- 24.26 DMS-500 User's Guide (DEC-11-ORDUA-B-D)

25.0 RSTS/E 2780 PACKAGE
- 25.1 Package Notes
- 25.2 RJ2780
- 25.3 RSTS/E 2780 User's Guide (DEC-11-ORJEA-B-D)

26.0 DIBOL-11/DECFORM V3C
- 26.1 Package Notes
- 26.2 Documentation
- 26.3 BUILD
- 26.4 DICOMP
- 26.5 DIBOL
- 26.6 DECFORM
- 26.7 ISMUTL
- 26.8 SORT

27.0 BASIC-PLUS-2 V1.04
- 27.1 Package Notes
- 27.2 BASIC2 Compiler Patches
- 27.3 BASIC2 Run-Time System Patches
- 27.4 BP2COM Run-Time System Patches
- 27.5 BASIC2 Object Library Patches
- 27.6 BP2COM Object Library Patches
- 27.7 BASRMS Object Library Patches

27.8 TRANSLATOR Utility
27.9 BASIC-PLUS-2 Language Manual (AA-0153A-TK)
27.10 BASIC-PLUS-2 RSTS/E User's Guide (AA-0154A-TC)
27.11 BASIC-PLUS-2 RSTS/E Installation Guide (AA-0156A-TC)

28.0 COBOL V3.0
28.1 Package Notes
28.2 COBOL Compiler
28.3 COBOL Object Library
28.4 COBOL ODL
28.5 COBOL Utilities
28.6 PDP-11 COBOL Language Reference Manual (AA-1749D-TC)
28.7 PDP-11 COBOL User's Guide (AA-1757C-TC)
28.8 PDP-11 COBOL Installation Guide (AA-1745C-TC)

29.0 RMS-11 V1.5
29.1 Package Notes
29.2 RMS11.RTS
29.3 RMS11.ODL
29.4 RMSLIB.OLB
29.5 RMSMAC.MLB
29.6 RMSUTL.OLB
29.7 RSTS/E RMS-11K Installation Guide (AA-5185B-TC)
29.8 (Reserved)
29.9 (Reserved)
29.10 RMS-11K V1.5
29.11 RMS-11K Package Notes
29.12 RMS11.RTS
29.13 RMS11.ODL
29.14 RMSLIB.OLB
29.15 RMSMAC.MLB
29.16 RMSUTL.OLB

30.0 SORT-11 V02
30.1 Package Notes
30.2 SORT Utility
30.3 PDP-11 SORT Reference Manual (AA-3341C-TC)

31.0 DECnet/E V1.0 Utilities
31.1 Package Notes
31.2 NCP
31.3 NCU
31.4 TLK
31.5 LSN
31.6 NIP
31.7 NETCPY
31.8 NCROOT
31.9 NETFNC
31.10 NFT
31.11 FAL

32.0 RPG II V8.02
32.1 Package Notes
32.2 COMPILER
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32.4 RPGFNS
32.5 RPGASN
32.6 RPGDCV
32.7 RPGDMP
32.8 RPGESP

32.9 RPGFCV
32.10 RPGPCV
32.11 RPG II Report Program Generator Language Manual (AA-5371A-TC)
32.12 RPG II Report Program Generator User's Guide (AA-C866A-TC)

33.0 APL-11
33.1 Package Notes
33.2 Run-Time System Patches
33.3 Documentation

34.0 DATATRIEVE-11 V1
34.1 Package Notes

35.0 WISE V1
35.1 Package Notes
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35.3 SKLTON
35.4 REQUES
35.5 RGRADE
35.6 REGSTR
35.7 NEWFIL

36.0 DIBOL-11/DECFORM V4D
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36.2 CTSPIP
36.3 Build Procedures
36.4 DICOMP
36.5 DIBOLR
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- 42.6 DATATRIEVE-11(V1.1) IAS, RSX-11M, RSTS/E Installation Guide (AA-H169A-TC)
- 42.7 DATATRIEVE-11 V1.1 Release Notes (AA-D110B-TC)

RSTS/E V06C-03 Seq 10.4.2 M
System Utilities Package
DISPLY

CORRECT APPEARANCE OF "NSW" IN JOB STATUS - MANDATORY DISPLY PATCH

PROBLEM:

If a job is non-swappable, the status of that job will be listed in the form "DBNSw", rather than "DB NSw".

SOLUTION:

The patching procedure detailed below corrects the above problem.

PROCEDURE:

1. For purposes of the discussion, we will assume that the required program to be patched is located on the public disk structure. In the patching procedure, we will refer to the program by its most simple name format: <program name>.BAS. The person performing the patching operation should, if necessary, replace all program references with suitable text according to the requirements of the installation.

   Also, for purposes of presenting the patching procedure, we assume that the patching operation will be performed in a privileged account.

2. The command file for this patch appears in patch kit version "E" or later. If you do not have this distribution you can produce a command file by specifying a file for [logfile=] in the procedure below.

   To apply the patch manually, perform the following RSTS/E system commands.

```
RUN $CPATCH<cr>
<CPATCH's header line>

File to patch - DISPLY.BAS=DISPLY.BAS<cr>
#[logfile=]<cr>
*H/6!/V<cr>
6!              EDIT            : 03A
*G/03A/I/B/V<cr>
6!              EDIT            : 03AB
*H/7!/V<cr>
7!              EDIT DATE       : 05-JUN-78
*G/05-JUN-78/-9C/13-OCT-78/V<cr>
7!              EDIT DATE       : 13-OCT-78
*H/21!/G/REASON/V<cr>
21!     VER/ED          EDIT DATE       REASON
*I<cr>
<1f>
  !<tab>6C-03AB<tab><tab>13-OCT-78<tab>CORRECT 'NSW' APPEARANCE IN<1f>
  !<tab><tab><tab><tab><tab>JOB STATUS.<esc>*V<cr>
  !                                     JOB STATUS.
```

RSTS/E VØ6C-Ø3
System Utilities Package
DISPLY

Seq 1Ø.4.2 M


```
*H/1Ø21Ø<tab>/V<cr>
1Ø21Ø   IF (C% AND 63%)<>Ø% THEN
*4AV<cr>
                T$="NSw "
*G/"/I/ /3JDV<cr>
                T$=" NSw"
*EX<cr>
Patch from KB:[P,PN]CPATCH.CMD complete
#^Z
File to patch - ^Z

Ready
```

3. To re-compile the program and re-enter it into the system library, type the following RSTS/E commands.

```
OLD DISPLY<cr>

Ready

APPEND VTxx.DPY<cr>

Ready

COMPILE $VTxxPY<cr>

Ready

RUN $PIP<cr>
#=$VTxxPY.BAC<232>/RE<cr>
#^Z

Ready
```

4. The person making the changes to the program should now take whatever steps are necessary, according to installation guidelines, to save the new version of the program.

5. The source (.BAS) version of the program should now be removed from the public structure by using either the UNSAVE or the KILL commands of RSTS/E.

RSTS/E V06C-03
System Utilities Package
REORDR

Seq 10.20.2 M

REORDR REJECTS COMMANDS IF PROTECTION CODE IS ASSIGNED - MANDATORY REORDR PATCH

PROBLEM:

If a default protection code has been assigned ("ASSIGN <60>"), REORDR thinks that the protection code was specified on the command line, and rejects the device/account specification.

SOLUTION:

The patching procedure detailed below will cause REORDR to ignore the presence of an explicit or default protection code.

PROCEDURE:

1. For purposes of the discussion, we will assume that the required program to be patched is located on the public disk structure. In the patching procedure, we will refer to the program by its most simple name format: <program name>.BAS. The person performing the patching operation should, if necessary, replace all program references with suitable text according to the requirements of the installation.

   Also, for purposes of presenting the patching procedure, we assume that the patching operation will be performed in a privileged account.

2. The command file for this patch appears in patch kit version "E" or later. If you do not have this distribution you can produce a command file by specifying a file for [logfile=] in the procedure below.

   To apply the patch manually, perform the following RSTS/E system commands.

```
RUN $CPATCH<cr>
<CPATCH's header line>

File to patch - REORDR.BAS=REORDR.BAS<cr>
#[logfile=]<cr>
*H/6!/V<cr>
6!              EDIT            : 03
*G/03/I/A/V<cr>
6!              EDIT            : 03A
*H/7!/V<cr>
7!              EDIT DATE       : 30-NOV-77
*G/30-NOV-77/-9C/26-OCT-78/V<cr>
7!              EDIT DATE       : 26-OCT-78
*H/21!/G/REASON/V<cr>
21!     VER/ED          EDIT DATE       REASON
*I<cr>
<lf>
  !<tab>V06C-03A<tab>26-OCT-78<tab>IGNORE PROTECTION CODES.<esc>*V<cr>
  !     V06C-03A        26-OCT-78       IGNORE PROTECTION CODES.
```

RSTS/E VØ6C-Ø3
System Utilities Package
REORDR

Seq 1Ø.2Ø.2 M

Page 2 of 2

```
*H/1Ø1Ø<tab>/V<cr>
1Ø1Ø     I$ = "VØ6C-Ø3"
*G/Ø3/I/A/V<cr>
1Ø1Ø     I$ = "VØ6C-Ø3A"
*H/133Ø<tab>/V<cr>
133Ø        I% = I%(29%) + SWAP%(I%(3Ø%))
*AV<cr>
        \  IF (I% AND -17153%) <> 12416%
*G/-17153/-6C/-18177/V<cr>
        \  IF (I% AND -18177%) <> 12416%
*EX<cr>
Patch from KB:[P,PN]CPATCH.CMD complete
#^Z
File to patch - ^Z

Ready
```

3. To re-compile the program and re-enter it into the system library, type the following RSTS/E commands.

```
OLD REORDR<cr>

Ready

COMPILE $REORDR<cr>

Ready
```

4. The person making the changes to the program should now take whatever steps are necessary, according to installation guidelines, to save the new version of the program.

5. The source (.BAS) version of the program should now be removed from the public structure by using either the UNSAVE or the KILL commands of RSTS/E.

RSTS/E VØ6C-Ø3
RSX Emulator Package
RSX.RTS

TYPING CTRL/C MAY RESULT IN ENDLESS LOOP - MANDATORY RSX.RTS PATCH

PROBLEM:

An undocumented feature of the RSX Run-Time System is the ability to set a CTRL/C trap, by specifying the address of a CTRL/C handling routine in location 24(octal) of the job's virtual address space. However, once this trap is set, it remains set until the job explicitly nullifies it by clearing location 24(octal). This can lead to a situation where no valid error handling routine is present, but the trap is still set to a (now) random value. Typing a CTRL/C then causes random code to be executed, which may cause an endless sequence of error messages to be printed at the job's console terminal.

SOLUTION:

The following patch will result in location 24(octal) being cleared whenever a CTRL/C is typed. This will cure the problem described above. This also means that setting the CTRL/C trap is effective for only one occurrence of typing CTRL/C. The trap must be reset, if desired, following the processing of each CTRL/C.

PROCEDURE:

1. This is a required patch to the RSX Run-Time System.

2. The patch described in Step 4 below can be installed using the PATCH option after bootstrapping your system disk:

   ```
   Option: PATCH
   File to patch? RSX.RTS
   ```

3. This patch can be installed manually using ONLPAT, the on-line patching program:

   ```
   RUN $ONLPAT
   Command File Name? <cr>     (RETURN for manual patch installation)
   File to patch? [Ø,1]RSX.RTS
   File found in account [Ø,1]
   ```

   The patch is also contained in a command file appearing in patch kit version "E" or later.

4. The patch is as follows:

```
File to patch? RSX.RTS
Base address? ..CC
Offset address? 6
 Base    Offset  Old      New?
??????  000006  105737   ? 4737
??????  000010  000400   ? PATCH+54
??????  000012  100002   ? ^Z            (CTRL/Z for new offset)
Offset address? ^Z                       (CTRL/Z for new base)
Base address? PATCH
Offset address? 54
 Base    Offset  Old      New?
??????  000054  000000   ? 5037
??????  000056  000000   ? 24
??????  000060  000000   ? 105737
??????  000062  000000   ? 400
??????  000064  000000   ? 207
??????  000066  000000   ? ^C            (CTRL/C to exit;up-arrow/C for ONLPAT)

Option:
```

5. If the above patch was installed using ONLPAT, it will take effect the next time the Run-Time System is reloaded. If the Run-Time System has been ADDed, execute the following commands:

```
RUN $UTILTY<cr>
<UTILTY's header line>
#UNLOAD RSX<cr>
#EXIT<cr>
```

If the Run-Time System was previously loaded permanently, reload it as follows:

```
RUN $UTILTY<cr>
<UTILTY's header line>
#LOAD RSX/STAY/ADDR:nnn<cr>
#EXIT<cr>
```

USING THE WRITE COMMAND (SPR 11-17165 RB)

When using the WRITE command, if a bad range is specified, the following command attempts to output the text buffer and fails with a "File Open Error." A subsequent attempt to exit from the editor also causes a "File Open Error" and all editing is lost, since the only way to exit from the editor gracefully is with the QUIT command (under these conditions).

In the erroneous WRITE command, the output file was opened before the syntax check of the range specification was accomplished. The order of these operations internal to EDT will be reversed in a future release of EDT.

In the meantime, ensure that your specification on WRITE and PRINT commands are correct before hitting the <RETURN> key on entering such a command to EDT.

"COPY % WH % TO %E" (SPR 11-17Ø97 RB)

A COPY command of the form "COPY % WH % TO %E" causes EDT to go into an infinite loop.

The specified COPY command constitutes one in which the source and destination operands overlap. This is illegal according to the Digital Editor Reference Manual. Unfortunately, EDT is not detecting this illegal condition, thus, preventing itself from entering a closed loop. The intention of the user can be accomplished by entering "COPY %BE:%E-1 % TO E". The indicated bug will be considered for a future release of EDT.

RSTS/E V6C
EDT

Seq 21.1Ø.5 M
1 of 1

COPY COMMAND CAN PRODUCE A TEXT BUFFER (SPR 11-17376 RB)

A COPY command can produce a text buffer in which line numbers are out of sequence and for in which duplicate line numbers are generated.

This phenomenon is due to stale information (internal to EDT) not being reinitialized under certain conditions. This bug can have disastrous results including the inability to access lines directly by line numbers, deleting wrong lines subsequently, etc. There is no general "work around." Users are advised to examine their buffers after such operations and to do local resequencing via the RESEQUENCE command, specifying the lines to be resequenced by range specifers of the form "srti" as would be used to reference lines without line numbers. This bug will be considered for a future release of EDT.

RSTS/E VØ6C-Ø3
RT-11 Emulator Package
HOOK.SAV

Seq 22.5.1 M

HOOK.SAV FAILS TO WRITE RMØ3 BOOTSTRAP - MANDATORY HOOK.SAV PATCH

PROBLEM:

When using HOOK.SAV to produce a bootable RMØ3 disk pack, the wrong bootstrap procedure is written to the target disk.

SOLUTION:

The following mandatory patch will solve this problem.

PROCEDURE:

1. This is a required patch to HOOK.SAV.

2. The patch described in Step 5 below can NOT be installed using the PATCH option of INIT.SYS.

3. This patch can be installed manually using ONLPAT, the on-line patching program:

   ```
   RUN $ONLPAT
   Command File Name? <cr>     (RETURN for manual patch installation)
   File to patch? [1,2]HOOK.SAV
   File found in account [1,2]
   ```

   The patch is also contained in a command file appearing in patch kit version "E" or later.

4. Since patching the distribution medium is not recommended, this patch must be applied every time HOOK.SAV is copied from the distribution medium.

   When generating a new system, this patch must be installed after running CREATE.SAV from the distribution medium, but before running SYSBAT.SAV.

RSTS/E V06C-03
RT-11 Emulator Package
HOOK.SAV

Seq 22.5.1 M

5. The patch is as follows:

```
Base address? 1000
Offset address? 230
 Base    Offset  Old      New?
001000  000230  062703   ? 62702
001000  000232  000002   ? ^C          (up-arrow/C to exit)
Patch complete
1 patch installed

Command File Name ? ^Z                 (CTRL/Z to exit)
```

RSTS/E VØ6C-Ø3
RT-11 Emulator Package
PIP.SAV

Seq 22.13.8 M

PIP WRITES INCORRECT RECORD LENGTH ON ANSI MAGTAPES - MANDATORY PIP.SAV PATCH

PROBLEM:

PIP.SAV always attempts to pre-extend any output file when no data translation is being performed. The filesize option on ANSI magtapes specifies the record length that should be written into the second ANSI file header label. When block mode transfer is being done to an ANSI format tape the wrong information is inadvertently written into the ANSI header labels.

SOLUTION:

The following mandatory PIP.SAV patch will solve this problem.

PROCEDURE:

1. This is a required patch to PIP.SAV.

2. The patch described in Step 4 below CANNOT be installed using the INIT PATCH option.

3. This patch must be installed manually using ONLPAT, the on-line patching program:

```
RUN $ONLPAT
Command File Name? <cr>      (RETURN for manual patch installation)
File to patch? [1,2]PIP.SAV
File found in account [1,2]
```

   The patch is also contained in a command file appearing in patch kit version "E" or later.

RSTS/E V06C-03
RT-11 Emulator Package
PIP.SAV

4. The patch is as follows:

```
Base address? 2176
Offset address? 7362
 Base    Offset  Old     New?
002176  007362  004767  ? 4737
002176  007364  000722  ? 25174+100
002176  007366  005067  ? ^Z              (CTRL/Z for new OFFSET)
Offset address? ^Z                       (CTRL/Z for new BASE)
Base address? 25174
Offset address? 100
 Base    Offset  Old     New?
025174  000100  000000  ? 123727
025174  000102  000000  ? 22754+460
025174  000104  000000  ? 16
025174  000106  000000  ? 1002
025174  000110  000000  ? 5037
025174  000112  000000  ? 22754+606
025174  000114  000000  ? 137
025174  000116  000000  ? 2176+10310
025174  000120  000000  ? ^C            (Up-arrow/C to exit)
Patch complete
1 patch installed

File to patch? ^Z                        (CTRL/Z to exit)
```

COBOL-11 V3
for RSTS/E V6C
COMPILER

LARGE PROGRAM ABORTS WITH "SYSTEM ERROR ØØ3" (SPR 11-19196 MH)

Large program aborts with "System Error ØØ3" during compilation.

The program in question is too large to be compiled in one piece by COBOL-11. The problem may be circumvented by restructuring the program into several sub-programs for separate compilation.

COBOL-11 V3
for RSTS/E V6C
COMPILER

INVALID ERROR MESSAGE IS GENERATED BY THE COMPILER (SPR 11-13353 RB)

An invalid error message is generated by the compiler which states that Index-names in a subscript list are undefined when in fact the Index-names were properly defined by the user.

A boundary condition problem exists within the COBOL-11 compiler's workfile system which causes issuance of the unwarranted error message. This problem will be considered for a future release. This problem may be avoided by insertion of a dummy Ø1 data declaration preceeding the declaration containing the referenced Index-name.

RPG II V8.02
for RSTS/E V6C
OTS V8.02Q

CLOSING RMS FILES ON RSX SYSTEMS - MANDATORY OTS PATCH (YL)

PROBLEM:

Closing RMS files on RSX systems (RSX-11M, IAS, VAX/VMS Compatability Mode) requires clearing the XAB field of the FAB before issuing a $CLOSE. If the XAB field is not cleared, RMS will validate protection by scanning the XAB chain, which will sometimes cause an odd address violation during file closing on RSX systems. RMS on RSTS/E does not validate protection during file closing; therefore, this patch is not necessary at the present time, but it is mandatory in case of a future change to RMS.

SOLUTION:

The patch detailed below corrects this problem.

PROCEDURE:

1. For purposes of the discussion, we will assume that the RPG OTS patch command file is located on the public disk structure. In the patching procedure, we will, therefore, refer to that file by its simplest form: RPGPAT.CMD. If the file is not available as assumed, you should replace all of the file references according to the requirements of your installation.

   Also, for purposes of presenting the patching procedure, we assume that the patching procedure will be performed in a privileged account.

2. The command file for this patch appears in patch kit version "E" or later. If you do not have that distribution, you can produce a command file by specifying a file for [logfile=] in the procedure below.

   To apply the patch manually, perform the following RSTS/E system commands.

```
RUN $CPATCH<cr>
<CPATCH's header line>

File to patch - RPGPAT.CMD=RPGPAT.CMD<cr>
#[logfile=]<cr>
*H/EXTSCT/V<cr>
EXTSCT=$$RPG0:452<cr>
*G/452/-C/6/V<cr>
EXTSCT=$$RPG0:456<cr>
*H/V8.02Q/V<cr>
; V8.02Q -- MULTIPLE PRE-EXECUTION TABLES<cr>
*2AV<cr>
GBLPAT=RMSOV:M.PAT+432:16065:0:4:5062:50:62716:2:207<cr>
*AI<cr>
;<cr>
; V8.02R -- CLOSE RMS FILES ON RSX SYSTEMS<cr>
GBLPAT=RMSOV:M.PAT+444:5065:30:62716:2:207<cr>
<esc>*EX<cr>
```

RPG II V8.02
for RSTS/E V6C
OTS V8.02Q


```
Patch from KB:[P,PN]CPATCH.CMD complete
#^Z
File to patch - ^Z

Ready
```

3. To replace the RPG OTS patch command file in the system library, type the following RSTS/E commands.

```
RUN $PIP.SAV<cr>
*$RPGPAT.CMD<40>=RPGPAT.CMD<cr>
*^Z

Ready
```

4. You should now take whatever steps are necessary, according to your installation guidelines, to save the new version of the command file.

5. It is necessary to re-task build your RPG programs in order to take advantage of the corrections just made. It is not necessary to re-compile.

RPG II V8.02
for RSTS/E V6C
OTS V8.02R

Seq 32.3.15 M
1 of 2

SENSING OVERFLOW WHEN TOTAL TIME OUTPUT ONLY - MANDATORY OTS PATCH (YL)

PROBLEM:

RPG resets all internal overflow bit switches at total time rather than being selective about it.

SOLUTION:

The patch detailed below deletes this reset scheme and relocates the internal overflow indicator reset to the forms advance routine. Forms advance resets the internal overflow switch for the file when the line count is reset to one.

PROCEDURE:

1. For purposes of the discussion, we will assume that the RPG OTS patch command file is located on the public disk structure. In the patching procedure, we will, therefore, refer to that file by its simplest form: RPGPAT.CMD. If the file is not available as assumed, you should replace all of the file references according to the requirements of your installation.

   Also, for purposes of presenting the patching procedure, we assume that the patching procedure will be performed in a privileged account.

2. The command file for this patch appears in patch kit version "E" or later. If you do not have that distribution, you can produce a command file by specifying a file for [logfile=] in the procedure below.

   To apply the patch manually, perform the following RSTS/E system commands.

```
RUN $CPATCH<cr>
<CPATCH's header line>

File to patch - RPGPAT.CMD=RPGPAT.CMD<cr>
#[logfile=]<cr>
*H/EXTSCT/V<cr>
EXTSCT=$$RPG0:456<cr>
*G/456/-3C/506/V<cr>
EXTSCT=$$RPG0:506<cr>
*H/V8.02R/V<cr>
; V8.02R -- CLOSE RMS FILES ON RSX SYSTEMS<cr>
*AV<cr>
GBLPAT=RMSOV:M.PAT+444:5065:30:62716:2:207<cr>
*AI<cr>
;<cr>
; V8.02S -- OVERFLOW INDICATOR RESET FOR TOTAL TIME OUTPUT ONLY<cr>
GBLPAT=RMSOV:M.STRT+1330:240:240<cr>
GBLPAT=RMSOV:R.FADV+144:4737:2000:452<cr>
GBLPAT=RMSOV:M.PAT+456:12762:1:10:62716:126:4576:0:142663<cr>
GBLPAT=RMSOV:M.PAT+476:310:162716:124:207<cr>
<esc>*EX<cr>
```

RPG II V8.02
for RSTS/E V6C
OTS V8.02R


```
Patch from KB:[P,PN]CPATCH.CMD complete
#^Z
File to patch - ^Z

Ready
```

3. To replace the RPG OTS patch command file in the system library, type the following RSTS/E commands.

```
RUN $PIP.SAV<cr>
*$RPGPAT.CMD<40>=RPGPAT.CMD<cr>
*^Z

Ready
```

4. You should now take whatever steps are necessary, according to your installation guidelines, to save the new version of the command file.

5. It is necessary to re-task build your RPG programs in order to take advantage of the corrections just made. It is not necessary to re-compile.

RPG II V8.02
for RSTS/E V6C
RPGDMP V2-03

ILLEGAL VARIABLE NAME IN BASIC-PLUS-2 SOURCE - MANDATORY RPGDMP PATCH (GH)

PROBLEM:

There is an illegal variable name in the BASIC-PLUS-2 source of RPGDMP that causes an "?Illegal reserved word" error with BASIC-PLUS-2 V1.50.

SOLUTION:

The patch detailed below will correct this problem.

NOTE

This patch applies only to the BASIC-PLUS-2 source form of RPGDMP (installed by RPGGEN.CTL).

PROCEDURE:

1. For purposes of the discussion, we will assume that the RPGDMP source file is located on the public disk structure. In the patching procedure, we will, therefore, refer to that file by its simplest form: RPGDMP.B2S. If the file is not available as assumed, you should replace all of the file references according to the requirements of your installation.

   Also, for purposes of presenting the patching procedure, we assume that the patching procedure will be performed in a privileged account.

2. The command files for this patch appear in patch kit version "E" or later. If you do not have that distribution, you can produce a command file by specifying a file for [logfile=] in the procedure below.

   To apply the patch manually, perform the following RSTS/E system commands.

```
RUN $CPATCH<cr>
<CPATCH's header line>

File to patch - RPGDMP.B2S=RPGDMP.B2S<cr>
#[logfile=]<cr>
*H/RPGDMP/V<cr>
2<tab>!<tab>Program<tab><tab>: RPGDMP<cr>
*2AL<cr>
6<tab>!<tab>Edit<tab><tab>: 03<cr>
*G/03/-C/4/V<cr>
6<tab>!<tab>Edit<tab><tab>: 04<cr>
*AL<cr>
7<tab>!<tab>Edit Date<tab>: 06-SEP-77<cr>
*G/06-SEP-77/-9C/20-SEP-78/V<cr>
7<tab>!<tab>Edit Date<tab>: 20-SEP-78<cr>
```

```
*5AL<cr>
11<tab>!<tab>Copyright (C) 1976,77, &<cr>
*G/77,/I/78,/V<cr>
11<tab>!<tab>Copyright (C) 1976,77,78, &<cr>
*H/V02-03/V<cr>
<tab>!<tab>V02-03<tab><tab>06-SEP-77:JLE<tab>XLATE HEX TRANSLATION<cr>
*G/ION/I<cr>
 &<cr>
<tab>!<tab>V02-04<tab><tab>20-SEP-78:GJH<tab>BASIC-PLUS-2 V1.50<esc>*V<cr>
<tab>!<tab>V02-04<tab><tab>20-SEP-78:GJH<tab>BASIC-PLUS-2 V1.50<cr>
*H/V2-03/V<cr>
1000<tab>EXTEND \ IDENT$="RPGDMP V2-03" \ ON ERROR GO TO 19000 &<cr>
*-C/4/V<cr>
1000<tab>EXTEND \ IDENT$="RPGDMP V2-04" \ ON ERROR GO TO 19000 &<cr>
*H/3000<tab>/V<cr>
3000<tab>IF ORG%=SEQ% THEN &<cr>
*7AL<cr>
<tab><tab>POS%=VAL(ARG$(1%)) \ LEN%=VAL(ARG$(3%)) \ J%=0% &<cr>
*G/POS/I/./V<cr>
<tab><tab>POS.%=VAL(ARG$(1%)) \ LEN%=VAL(ARG$(3%)) \ J%=0% &<cr>
*H/3031<tab>/V<cr>
3031<tab>IF ORG%=IND% THEN &<cr>
*2AL<cr>
<tab>POS%=INSTR(1%,S1$,KEY1$) IF POS%=0% \ KEYX$=MID(S1$,POS%,LEN%) \ &<cr>
*G/POS/I/./G/POS/I/./G/POS/I/./V<cr>
<tab>POS.%=INSTR(1%,S1$,KEY1$) IF POS.%=0% \ KEYX$=MID(S1$,POS.%,LEN%) \ &<cr>
*EX<cr>
Patch from KB:[P,PN]CPATCH.CMD complete
#^Z
File to patch - ^Z

Ready
```

3. To re-build the RPGDMP program and re-enter it into the system library, type the following RSTS/E commands.

```
RUN $BASIC2.TSK<cr>

<BASIC-PLUS-2's header line>


Basic2

OLD RPGDMP<cr>

Basic2

HISEG<cr>
Name--BP2COM<cr>
Account--LB:<cr>

Basic2
```

```
COMPILE/OBJ<cr>

Basic2

BUILD/SEQ/REL/IND<cr>

Basic2

RUN $TKB.TSK<cr>
TKB>@RPGDMP<cr>
TKB>^Z

Ready

RUN $PIP.SAV<cr>
*$RPGDMP.TSK=RPGDMP.TSK<cr>
*=$RPGDMP.TSK<232>/RE<cr>
*^Z

Ready
```

4. You should now take whatever steps are necessary, according to your installation guidelines, to save the new version of the program.

5. The source (.B2S) version of the program and other files used during the patching procedures should now be removed from the public structure.

DATATRIEVE-11 V1, V1.1
for RSTS/E V6C

ARVLCP: EXPECTED VL BLOCK (SPR 11-19991 JS)

A report sequence with a large number of total fails with the message:

ARVLCP: Expected VL block.

A Datatrieve Report procedure is limited to a maximum of 16 (decimal) statistical functions (total, average, etc.) due to an assembled in stack size.

ZONED ASCII ARITHMETIC FOR BP2COM V1.50 - OPTIONAL BP2COM PATCH (GH)

PROBLEM:

The DIBOL-11/DECFORM V4D distribution kit contains a module named ZARITH.OBJ that modifies the BASIC-PLUS-2 String Arithmetic package to allow it to directly process Zoned ASCII numeric representations. Although this module will work with the new release (V1.50) of BASIC-PLUS-2, the corresponding routine in V1.50 has changed somewhat.

SOLUTION:

Installing the optional patch detailed below into the BP2COM.OLB object library will incorporate the Zoned ASCII capability into the new String Arithmetic package. The command file for this patch appears in patch kit version "E" or later.

PROCEDURE:

1. Build the following correction file using an editor and name it: START.COR.

```
            .TITLE  $START
            .IDENT  /12CMA/

      $PC=.
      .=$PC+70
      RESREG:
      .=$PC+714
            CMPB    -(R3),#56
            CALL    P1
      .=$PC+2022
            CALL    P2
            BR      1$
            CALL    P3
      .=$PC+2036
      1$:
      .=$PC+2060
            CALL    P2
            BR      1$
            CALL    P4
            NOP
      .=$PC+2200
      STRCHR:
      .=$PC+2316
            JMP     P5
      .=$PC+3100
            CALL    P6
      .=$PC+3332
            CALL    P7
```

```
.=$PC+3460
P1:     BEQ     2$
        INC     R3
        BICB    #100,R0
2$:     RETURN
P2:     MOVB    (R3),R5
        BICB    #100,(R3)
        CALL    STRCHR
        MOVB    R5,(R3)
        BLO     3$
        COM     4(R2)
        BNE     4$
        COM     4(R2)
3$:     ADD     #2,(SP)
4$:     RETURN
P3:     CMPB    (R3),#55
        BNE     5$
        COM     4(R2)
5$:     RETURN
P4:     SUB     R3,R4
        MOVB    2(R2),R3
        SUB     R4,R3
        MOVB    R3,2(R2)
        RETURN
P5:     TSTB    3(R2)
        BNE     6$
        TST     4(R2)
        BEQ     6$
        BISB    #100,-(R3)
        DECB    2(R2)
        INC     6(SP)
6$:     JSR     R5,RESREG
        RETURN
P6:     MOVB    (R5)+,(R3)+
        SOB     R0,P6
        BICB    #100,-1(R3)
        RETURN
P7:     CMPB    R4,#56
        BEQ     7$
        BICB    #100,R4
7$:     RETURN
        .END
```

2. Assemble the correction file as follows:

```
RUN $MAC.TSK
MAC>START.PAT=START.COR
MAC>^Z                                  (CTRL/Z to exit)
```

3. Extract the original module from the library as follows:

```
RUN $LBR.TSK
LBR>START.OLD=LB:BP2COM/EX:$START
LBR>^Z                                                    (CTRL/Z to exit)
```

4. Run the patch utility to merge the correction into the old module:

```
RUN $PAT.TSK
PAT>START=START.OLD/CS:112063,START.PAT/CS:042451
PAT>^Z                                                    (CTRL/Z to exit)
```

5. Replace the patched module in the library:

```
RUN $LBR.TSK
LBR>LB:BP2COM/RP=START
LBR>^Z                                                    (CTRL/Z to exit)
```

6. It is necessary to re-task build your BASIC-PLUS-2 programs in order to take advantage of the modified String Arithmetic module. It is not necessary to re-compile.

DIBOL-11/DECFORM V4D
for RSTS/E V6C
Package Notes

ZONED ASCII ARITHMETIC FOR BASIC2 V1.50 - OPTIONAL BASIC2 PATCH (GH)

PROBLEM:

The DIBOL-11/DECFORM V4D distribution kit contains a module named ZARITH.OBJ that modifies the BASIC-PLUS-2 String Arithmetic package to allow it to directly process Zoned ASCII numeric representations, and the Release Notes with that distribution kit include a patch to be made to the BASIC-PLUS-2 Symbol Table file to allow this module to be used with the BASIC2 Run-Time System. The patch included in the CTS-500 DIBOL-11 Release Notes, Order No. AA-5504B-TC, is incorrect for BASIC-PLUS-2 V1.50.

SOLUTION:

Installing the optional patch detailed below into the BASIC2 Run-Time System will incorporate the Zoned ASCII capability into the new String Arithmetic package. The command file for this patch appears in patch kit version "E" or later.

PROCEDURE:

1. Install the following patch using ONLPAT, the on-line patching program:

```
RUN $ONLPAT
Command File Name? <CR>
File to patch? [0,1]BASIC2.RTS
File found in account [0,1]
Base address? COM$-130
Offset address? 714
 Base   Offset  Old     New?
??????  000714  124327  ? <LF>
??????  000716  000056  ? <LF>
??????  000720  001401  ? 4737
??????  000722  005203  ? PATCH+2000
??????  000724  162700  ? ^Z                    (CTRL/Z for new offset)
Offset address? 2022
 Base   Offset  Old     New?
??????  002022  121327  ? 4737
??????  002024  000055  ? PATCH+2012
??????  002026  001364  ? 403
??????  002030  005162  ? 4737
??????  002032  000004  ? PATCH+2050
??????  002034  000761  ? ^Z                    (CTRL/Z for new offset)
Offset address? 2060
 Base   Offset  Old     New?
??????  002060  160304  ? 4737
??????  002062  116203  ? PATCH+2012
??????  002064  000002  ? 764
??????  002066  160403  ? 4737
??????  002070  110362  ? PATCH+2064
??????  002072  000002  ? 240
??????  002074  000430  ? ^Z                    (CTRL/Z for new offset)
```

```
Offset address? 2316
 Base   Offset  Old     New?
??????  002316  004537  ? 137
??????  002320  ??????  ? PATCH+2102
??????  002322  000207  ? ^Z                    (CTRL/Z for new offset)
Offset address? 3100
 Base   Offset  Old     New?
??????  003100  112523  ? 4737
??????  003102  077002  ? PATCH+2140
??????  003104  005701  ? ^Z                    (CTRL/Z for new offset)
Offset address? 3332
 Base   Offset  Old     New?
??????  003332  120427  ? 4737
??????  003334  000056  ? PATCH+2154
??????  003336  001410  ? ^Z                    (CTRL/Z for new offset)
Offset address? ^Z                             (CTRL/Z for new base)
Base address? PATCH+2000
Offset address? 0
 Base   Offset  Old     New?
??????  000000  000000  ? 1403
??????  000002  000000  ? 5203
??????  000004  000000  ? 142700
??????  000006  000000  ? 100
??????  000010  000000  ? 207
??????  000012  000000  ? 111305
??????  000014  000000  ? 142713
??????  000016  000000  ? 100
??????  000020  000000  ? 4737
??????  000022  000000  ? COM$-130+2200
??????  000024  000000  ? 110513
??????  000026  000000  ? 103405
??????  000030  000000  ? 5162
??????  000032  000000  ? 4
??????  000034  000000  ? 1004
??????  000036  000000  ? 5162
??????  000040  000000  ? 4
??????  000042  000000  ? 62716
??????  000044  000000  ? 2
??????  000046  000000  ? 207
??????  000050  000000  ? 121327
??????  000052  000000  ? 55
??????  000054  000000  ? 1002
??????  000056  000000  ? 5162
??????  000060  000000  ? 4
??????  000062  000000  ? 207
??????  000064  000000  ? 160304
??????  000066  000000  ? 116203
??????  000070  000000  ? 2
??????  000072  000000  ? 160403
??????  000074  000000  ? 110362
??????  000076  000000  ? 2
```

```
??????  000100  000000  ? 207
??????  000102  000000  ? 105762
??????  000104  000000  ? 3
??????  000106  000000  ? 1011
??????  000110  000000  ? 5762
??????  000112  000000  ? 4
??????  000114  000000  ? 1406
??????  000116  000000  ? 152743
??????  000120  000000  ? 100
??????  000122  000000  ? 105362
??????  000124  000000  ? 2
??????  000126  000000  ? 5266
??????  000130  000000  ? 6
??????  000132  000000  ? 4537
??????  000134  000000  ? COM$-130+70
??????  000136  000000  ? 207
??????  000140  000000  ? 112523
??????  000142  000000  ? 77002
??????  000144  000000  ? 142763
??????  000146  000000  ? 100
??????  000150  000000  ? 177777
??????  000152  000000  ? 207
??????  000154  000000  ? 120427
??????  000156  000000  ? 56
??????  000160  000000  ? 1402
??????  000162  000000  ? 142704
??????  000164  000000  ? 100
??????  000166  000000  ? 207
??????  000170  000000  ? ^C                    (circumflex/C to exit)
```

2. Replace the Run-Time System using the UTILTY system utility program:

```
RUN $UTILTY

#UNLOAD BASIC2
#^Z                                            (CTRL/Z to exit)

Ready
```

3. It is not necessary to re-task build your BASIC-PLUS-2 programs that use the BASIC2 Run-Time System in order to take advantage of the modified String Arithmetic module, nor is it necessary to re-compile them.

DIBOL-11/DECFORM V4D
CTS-5ØØ DIBOL USERS GUIDE AA-52Ø5B-TC
(These pages replace the current pages 3-19 and 3-2Ø)

CLARIFICATION OF SAMPLE ODL FILE (HU)

Before editing, DBRRMS.ODL would look like this:

```
; *** DBRRMS.ODL ***    V04D-05
; SAMPLE ODL FILE TO BE REFERENCED BY TKB
;
.ROOT   prog-PRGROT-RMSROT-PRGOVR,RMSALL
;
PRGROT: .FCTR   $DIBOLR/LB:orgs:xsubs-$DIBOLR/LB-PRGR01
PROGR01: .FCTR   LB:SYSLIB/LB
;
;       Where 'orgs' are one or more of SEQ,REL, and IDX
;       And 'xsubs' are one or more of the DIBOLR library
;       external subroutines
;
PRGOVR: .FCTR   *(user program overlay structure)
;
;@PRGOVR.ODL
;
; ************************************************
;
; RMS OVERLAY STRUCTURE FOR DIBOL
;
; ************************************************
;
; Use SRN,IDN,SRS,IDS, or IDX here.
@LB:DBRIDN.ODL
;
; ************************************************
;
RMSALL: .FCTR   RMS11-*(RMSFIL,RMSREC)
;
RMSREC: .FCTR   RMSRAB-(RMSCDX,RMSSQ0,DBRREL,DBRIDX)
;
DBRREL: .FCTR   RM0X26
@LB:DBRREL.ODL
;
DBRIDX: .FCTR   RM0X36
@LB:DBRIND.ODL
;
; ************************************************
.END
```

Then, using DBRRMS.ODL as input, create another file by editing. That new file is named PRG in this example, and becomes the input to the Task Builder. The PRG file contains the .ROOT directive, which itself contains five factors:

prog — This is your main program's object file.

PRGROT — These are the portions of your program (task) that should always be resident. One or more of the RMS organization identifier modules IDX, REL, and SEQ are specified here. These modules reside in the CTS-500 System Library, as well as in the DIBOLR Run-Time System Library, and tell the Task Builder which pieces of RMS code to link in. (Any DIBOLR subroutines you want resident would also be added here.) SYSLIB is required.

RMSROT — This factor contains the RMS code that must always be resident. RMSROT is defined in the DBR???.ODL file supplied in the DIBOLR kit, and specified below.

PRGOVR — This is the overlaid portions of your program. Its structure follows the one previously described in this chapter. If you do not use overlays in your program, you may omit this factor completely. If you use a large overlay structure, you may want to put it in a separate file; it would then be referenced using the line @PRGOVR.ODL.

RMSALL — This is the RMS co-tree defined later on in this file. It calls factors referenced in DBR???.ODL.

You must specify a DBR???.ODL file, supplying the appropriate three-letter combination from the following list for the type of file you desire. The first two letters of the combination indicate the file organization supported, while the third letter indicates what RMS code is contained in the DIBOLR Run-Time System.

SR = Sequential and relative file organizations only
ID = Indexed files as well as sequential and relative
N = No RMS code in the Run-Time System

For example, using DBRIDN.ODL allows you to use all the RMS file organizations, but the Run-Time System you are using contains no RMS code. (This is the Run-Time System that the kit installs.)

You should edit the RMSREC factor to exclude any file organizations you do not access, also deleting the corresponding factors shown below it in the creation sequence. You must have RMSCDX. RMSSQ0 may be deleted but in most cases you will need it. All the other RMS files called are in LB:. You do not have to edit or create any other files before you begin task building.

RSTS/E V06C-03
BASIC-PLUS-2 V1.5
BP2COM Run-Time System

Seq 38.4.1 M

********** Supersedes Article November, 1978 **********

SYSTEM SECURITY EXPOSURE WITH BASIC-PLUS-2 KEYBOARD MONITOR - MANDATORY BP2COM PATCH

PROBLEM:

When the BP2COM Run-Time System is a job's default Run-Time System, either by virtue of being the system's default Run-Time System or as a result of user having SWITCHed to it, it processes all Keyboard Monitor requests for that job. The Keyboard Monitor within the BP2COM Run-Time System, however, does not explicitly drop privileges before executing any commands. This presents a potentially serious system security exposure. If a non-privileged user runs a privileged program (which is allowed), and the program's Run-Time System is BP2COM, unless the program drops privileges before exiting to the Keyboard Monitor, the user will retain those privileges. The user could then run any program in the system, including all privileged programs.

SOLUTION:

The following mandatory patch will cause privileges to be dropped before a program running under the BP2COM Run-Time System exits to the Keyboard Monitor.

PROCEDURE:

1. The Run-Time System must be removed with the UTILTY program as follows:

```
RUN UTILTY
<UTILTY's header line>
#REMOVE BP2COM
#^Z                                          (CTRL/Z to exit)
```

2. Install the following patch using the ONLPAT program supplied on the distribution media:

```
Command file? B04012=                        (Produces a permanent record)
File to patch? BP2COM.RTS
Base address? ..EXIT
Offset address? 56
 Base       Offset  Old     New?
??????      000056  000137  ? <lf>           (no change; verify only)
??????      000060  ??????  ? PATCH
??????      000062  022626  ? ^Z             (CTRL/Z for new offset)
Offset address? ^Z                           (CTRL/Z for new base)
Base address? PATCH
Offset address? 0
 Base       Offset  Old     New?
??????      000000  000000  ? 12737
??????      000002  000000  ? -1
??????      000004  000000  ? XRB
??????      000006  000000  ? .CLEAR
```

```
??????      000010  000000  ? 137
??????      000012  000000  ? ..NEW
??????      000014  ??????  ? ^Z            (CTRL/Z for new offset)
Offset address? ^Z                         (CTRL/Z for new base)
Base address? ^Z                           (CTRL/Z to exit)
```

3. Add the RTS back using the UTILTY program as follows:

```
RUN $UTILTY
<UTILTY's header line>
#ADD BP2COM
#^Z                                        (CTRL/Z to exit)
```

DIBOL-11/DECFORM V4C
for RSTS/E V6C
Package Notes

ZONED ASCII ARITHMETIC FOR BP2COM V1.50 - OPTIONAL BP2COM PATCH (GH)

PROBLEM:

The DIBOL-11/DECFORM V4C distribution kit contains a module named ZARITH.OBJ that modifies the BASIC-PLUS-2 String Arithmetic package to allow it to directly process Zoned ASCII numeric representations. Although this module will work with the new release (V1.50) of BASIC-PLUS-2, the corresponding routine in V1.50 has changed somewhat.

SOLUTION:

Installing the optional patch detailed below into the BP2COM.OLB object library will incorporate the Zoned ASCII capability into the new String Arithmetic package. The command file for this patch appears in patch kit version "E" or later.

PROCEDURE:

1. Build the following correction file using an editor and name it: START.COR.

```
        .TITLE  $START
        .IDENT  /12CMA/

$PC=.
.=$PC+70
RESREG:
.=$PC+714
        CMPB    -(R3),#56
        CALL    P1
.=$PC+2022
        CALL    P2
        BR      1$
        CALL    P3
.=$PC+2036
1$:
.=$PC+2060
        CALL    P2
        BR      1$
        CALL    P4
        NOP
.=$PC+2200
STRCHR:
.=$PC+2316
        JMP     P5
.=$PC+3100
        CALL    P6
.=$PC+3332
        CALL    P7
```

```
.=$PC+3460
P1:     BEQ     2$
        INC     R3
        BICB    #100,R0
2$:     RETURN
P2:     MOVB    (R3),R5
        BICB    #100,(R3)
        CALL    STRCHR
        MOVB    R5,(R3)
        BLO     3$
        COM     4(R2)
        BNE     4$
        COM     4(R2)
3$:     ADD     #2,(SP)
4$:     RETURN
P3:     CMPB    (R3),#55
        BNE     5$
        COM     4(R2)
5$:     RETURN
P4:     SUB     R3,R4
        MOVB    2(R2),R3
        SUB     R4,R3
        MOVB    R3,2(R2)
        RETURN
P5:     TSTB    3(R2)
        BNE     6$
        TST     4(R2)
        BEQ     6$
        BISB    #100,-(R3)
        DECB    2(R2)
        INC     6(SP)
6$:     JSR     R5,RESREG
        RETURN
P6:     MOVB    (R5)+,(R3)+
        SOB     R0,P6
        BICB    #100,-1(R3)
        RETURN
P7:     CMPB    R4,#56
        BEQ     7$
        BICB    #100,R4
7$:     RETURN
        .END
```

2. Assemble the correction file as follows:

```
RUN $MAC.TSK
MAC>START.PAT=START.COR
MAC>^Z                                  (CTRL/Z to exit)
```

3. Extract the original module from the library as follows:

```
RUN $LBR.TSK
LBR>START.OLD=LB:BP2COM/EX:$START
LBR>^Z                                          (CTRL/Z to exit)
```

4. Run the patch utility to merge the correction into the old module:

```
RUN $PAT.TSK
PAT>START=START.OLD/CS:112063,START.PAT/CS:042451
PAT>^Z                                          (CTRL/Z to exit)
```

5. Replace the patched module in the library:

```
RUN $LBR.TSK
LBR>LB:BP2COM/RP=START
LBR>^Z                                          (CTRL/Z to exit)
```

6. It is necessary to re-task build your BASIC-PLUS-2 programs in order to take advantage of the modified String Arithmetic module. It is not necessary to re-compile.

ZONED ASCII ARITHMETIC FOR BASIC2 V1.50 - OPTIONAL BASIC2 PATCH (GH)

PROBLEM:

The DIBOL-11/DECFORM V4C distribution kit contains a module named ZARITH.OBJ that modifies the BASIC-PLUS-2 String Arithmetic package to allow it to directly process Zoned ASCII numeric representations, and the Release Notes with that distribution kit include a patch to be made to the BASIC-PLUS-2 Symbol Table file to allow this module to be used with the BASIC2 Run-Time System. The patch included in the CTS-500 DIBOL-11 Release Notes, Order No. AA-5504B-TC, is incorrect for BASIC-PLUS-2 V1.50.

SOLUTION:

Installing the optional patch detailed below into the BASIC2 Run-Time System will incorporate the Zoned ASCII capability into the new String Arithmetic package. The command file for this patch appears in patch kit version "E" or later.

PROCEDURE:

1. Install the following patch using ONLPAT, the on-line patching program:

```
RUN $ONLPAT
Command File Name? <CR>
File to patch? [0,1]BASIC2.RTS
File found in account [0,1]
Base address? COM$-130
Offset address? 714
 Base   Offset  Old     New?
??????  000714  124327  ? <LF>
??????  000716  000056  ? <LF>
??????  000720  001401  ? 4737
??????  000722  005203  ? PATCH+2000
??????  000724  162700  ? ^Z                          (CTRL/Z for new offset)
Offset address? 2022
 Base   Offset  Old     New?
??????  002022  121327  ? 4737
??????  002024  000055  ? PATCH+2012
??????  002026  001364  ? 403
??????  002030  005162  ? 4737
??????  002032  000004  ? PATCH+2050
??????  002034  000761  ? ^Z                          (CTRL/Z for new offset)
Offset address? 2060
 Base   Offset  Old     New?
??????  002060  160304  ? 4737
??????  002062  116203  ? PATCH+2012
??????  002064  000002  ? 764
??????  002066  160403  ? 4737
??????  002070  110362  ? PATCH+2064
??????  002072  000002  ? 240
??????  002074  000430  ? ^Z                          (CTRL/Z for new offset)
```

```
Offset address? 2316
 Base   Offset  Old     New?
??????  002316  004537  ? 137
??????  002320  ??????  ? PATCH+2102
??????  002322  000207  ? ^Z                    (CTRL/Z for new offset)
Offset address? 3100
 Base   Offset  Old     New?
??????  003100  112523  ? 4737
??????  003102  077002  ? PATCH+2140
??????  003104  005701  ? ^Z                    (CTRL/Z for new offset)
Offset address? 3332
 Base   Offset  Old     New?
??????  003332  120427  ? 4737
??????  003334  000056  ? PATCH+2154
??????  003336  001410  ? ^Z                    (CTRL/Z for new offset)
Offset address? ^Z                             (CTRL/Z for new base)
Base address? PATCH+2000
Offset address? 0
 Base   Offset  Old     New?
??????  000000  000000  ? 1403
??????  000002  000000  ? 5203
??????  000004  000000  ? 142700
??????  000006  000000  ? 100
??????  000010  000000  ? 207
??????  000012  000000  ? 111305
??????  000014  000000  ? 142713
??????  000016  000000  ? 100
??????  000020  000000  ? 4737
??????  000022  000000  ? COM$-130+2200
??????  000024  000000  ? 110513
??????  000026  000000  ? 103405
??????  000030  000000  ? 5162
??????  000032  000000  ? 4
??????  000034  000000  ? 1004
??????  000036  000000  ? 5162
??????  000040  000000  ? 4
??????  000042  000000  ? 62716
??????  000044  000000  ? 2
??????  000046  000000  ? 207
??????  000050  000000  ? 121327
??????  000052  000000  ? 55
??????  000054  000000  ? 1002
??????  000056  000000  ? 5162
??????  000060  000000  ? 4
??????  000062  000000  ? 207
??????  000064  000000  ? 160304
??????  000066  000000  ? 116203
??????  000070  000000  ? 2
??????  000072  000000  ? 160403
??????  000074  000000  ? 110362
??????  000076  000000  ? 2
```

```
??????  000100  000000  ? 207
??????  000102  000000  ? 105762
??????  000104  000000  ? 3
??????  000106  000000  ? 1011
??????  000110  000000  ? 5762
??????  000112  000000  ? 4
??????  000114  000000  ? 1406
??????  000116  000000  ? 152743
??????  000120  000000  ? 100
??????  000122  000000  ? 105362
??????  000124  000000  ? 2
??????  000126  000000  ? 5266
??????  000130  000000  ? 6
??????  000132  000000  ? 4537
??????  000134  000000  ? COM$-130+70
??????  000136  000000  ? 207
??????  000140  000000  ? 112523
??????  000142  000000  ? 77002
??????  000144  000000  ? 142763
??????  000146  000000  ? 100
??????  000150  000000  ? 177777
??????  000152  000000  ? 207
??????  000154  000000  ? 120427
??????  000156  000000  ? 56
??????  000160  000000  ? 1402
??????  000162  000000  ? 142704
??????  000164  000000  ? 100
??????  000166  000000  ? 207
??????  000170  000000  ? ^C                    (circumflex/C to exit)
```

2. Replace the Run-Time System using the UTILTY system utility program:

```
RUN $UTILTY

#UNLOAD BASIC2
#^Z                                          (CTRL/Z to exit)

Ready
```

3. It is not necessary to re-task build your BASIC-PLUS-2 programs that use the BASIC2 Run-Time System in order to take advantage of the modified String Arithmetic module, nor is it necessary to re-compile them.

COBOL-11 V3.1
for RSTS/E V6C
COMPILER

Seq 4Ø.2.1 N
1 of 1

INVALID ERROR MESSAGE IS GENERATED BY THE COMPILER (SPR 11-13353 RB)

An invalid error message is generated by the compiler which states that Index-names in a subscript list are undefined when in fact the Index-names were properly defined by the user.

A boundary condition problem exists within the COBOL-11 compiler's workfile system which causes issuance of the unwarranted error message. This problem will be considered for a future release. This problem may be avioded by insertion of a dummy Ø1 data declaration preceeding the declaration containing the referenced Index-name.

MULTIPLE OCCURS CLAUSES (SPR 11-1945Ø JP)

In programs with group items containing multiple tables, the compiler may unnecessarily and incorrectly synchronize the allocation of the second and subsequent tables.

A patch to correct this problem has been developed. However, where the condition occurred in record descriptions for files, recompiling existing programs after installing the patch could cause difficulty in reading files that were written by old programs because of the difference in record descriptions. In those cases, it is necessary to modify the newly-compiled programs to match the record descriptions in the pre-patched versions.

A method for detecting the problem and modifying the newly-compiled programs is presented.

DETAILS:

A table is automatically SYNCHRONIZED (LEFT) if at least one subordinate data item is synchronized (either explicitly or implicitly). If, as the compiler processes the Data Division, it recognizes a data item to be both synchronized and subordinate to a recurring data item, it flags the recurring data item for synchronization as well.

This flag is not cleared by the pre-patched compiler until it detects a new group item with a level-number that is the same or lower than the recurring data item. The compiler is thus caused to synchronize any subsequent odd-length display data item with an OCCURS clause and no subordinate data items that is at the same level number as the recurring data item that caused the flag to be set. See "Ø2 TABLE-A" in Figure A. Note also that, in the same figure, "Ø2 TABLE-B" is not synchronized. As a result, "Ø1 ITEM-A" and "Ø1 ITEM-B" are not allocated identically (as they should have been).

Figures B and C are maps generated for the program in Figure A before and after the compiler patch was installed. Note that the length of ITEM-A is different in the two maps. As we would expect, Figure C shows that ITEM-A and ITEM-B have the same allocation.

ACTION:

1. Before installing the compiler patch, programs with multiple OCCURS clauses in the same record should be recompiled with the /MAP switch.

2. After installing the patch, compile the program once again with the /MAP switch.

3. Compare the record and group descriptions in the "before" and "after" maps. Where differences in lengths occur, you must adjust the record/group descriptions and recompile to enable programs to process affected files.

   Data items affected by the patch are easily recognized. They:

   a) are odd-length display data items, such as PIC X(3),

   b) have an OCCURS clause,

   c) are elementary items, and

   d) would not normally be synchronized.

   In Figure A, TABLE-A fits this description.

4. Recode data items affected by the patch as subordinates to a recurring group item and follow them with a one-character FILLER (see Figure D, in which GRP-TABLE1 and its subordinates replace TABLE-A). The map of this program (Figure E) shows the same allocation for TABLE-A as in the pre-patch version (Figure A).

RECOMMENDATION:

Because all future releases of PDP-11 COBOL will include the correction implemented through this patch, it is advisable to rebuild files that were affected by this problem to avoid difficulty in accessing them in the future.

FIGURE A

```
00001        IDENTIFICATION DIVISION.
00002        PROGRAM-ID. SYNC.
00003        ENVIRONMENT DIVISION.
00004        DATA DIVISION.
00005        WORKING-STORAGE SECTION.
00006
00007        01 ITEM-A.
00008          02 GROUP-A OCCURS 8 TIMES.
00009            03 DATA-A PIC 9(3) USAGE IS COMP.
00010          02 TABLE-A OCCURS 4 TIMES
00011                      PIC X(3).
00012
00013        01 ITEM-B.
00014          02 GROUP-B OCCURS 8 TIMES.
00015            03 DATA-B PIC 9(3) USAGE IS COMP.
00016          02 GROUP-B1.
00017            03 TABLE-B OCCURS 4 TIMES
00018                        PIC X(3).
00019
00020
00021        PROCEDURE DIVISION.
00022        BEGIN.
00023            STOP RUN.
```

FIGURE B
DATA MAP

LEVEL	NAME	SOURCE LINE	DDIV LOCN	DIR LOC	USAGE	CLASS	OCC	LEN
01	ITEM-A	00007	000224	******	DISP	AN	00	0032
02	GROUP-A	00008	000224	******	DISP	AN	01	0002
03	DATA-A	00009	000224	******	CMP	NUM	01	0002
02	TABLE-A	00010	000244	******	DISP	AN	01	0003
01	ITEM-B	00013	000264	******	DISP	AN	00	0028
02	GROUP-B	00014	000264	******	DISP	AN	01	0002
03	DATA-B	00015	000264	******	CMP	NUM	01	0002
02	GROUP-B1	00016	000304	******	DISP	AN	00	0012
03	TABLE-B	00017	000304	******	DISP	AN	01	0003

FIGURE C
DATA MAP

LEVEL	NAME	SOURCE LINE	DDIV LOCN	DIR LOC	USAGE	CLASS	OCC	LEN
01	ITEM-A	00007	000224	******	DISP	AN	00	0028
02	GROUP-A	00008	000224	******	DISP	AN	01	0002
03	DATA-A	00009	000224	******	CMP	NUM	01	0002
02	TABLE-A	00010	000244	******	DISP	AN	01	0003
01	ITEM-B	00013	000260	******	DISP	AN	00	0028
02	GROUP-B	00014	000260	******	DISP	AN	01	0002
03	DATA-B	00015	000260	******	CMP	NUM	01	0002
02	GROUP-B1	00016	000300	******	DISP	AN	00	0012
03	TABLE-B	00017	000300	******	DISP	AN	01	0003

FIGURE D

```
00001          IDENTIFICATION DIVISION.
00002          PROGRAM-ID. SYNC.
00003
00004          ENVIRONMENT DIVISION.
00005
00006          DATA DIVISION.
00007
00008          WORKING-STORAGE SECTION.
00009
00010          01 ITEM-A.
00011            02 GROUP-A OCCURS 8 TIMES.
00012              03 DATA-A PIC 9(3) USAGE IS COMP.
00013          * 02 TABLE-A OCCURS 4 TIMES
00014          *            PIC X(3).
00015            02 GRP-TABLE1 OCCURS 4 TIMES.
00016              03 TABLE-A PIC X(3).
00017              03 FILLER  PIC X.
00018
00019
00020          01 ITEM-B.
00021            02 GROUP-B OCCURS 8 TIMES.
00022              03 DATA-B PIC 9(3) USAGE IS COMP.
00023            02 GROUP-B1.
00024              03 TABLE-B OCCURS 4 TIMES
00025                         PIC X(3).
00026
00027
00028
00029          PROCEDURE DIVISION.
00030          BEGIN.
00031              STOP RUN.
```

FIGURE E

LEVEL	NAME	SOURCE LINE	DDIV LOCN	DIR LOC	USAGE	CLASS	OCC	LEN
01	ITEM-A	00010	000224	******	DISP	AN	00	0032
02	GROUP-A	00011	000224	******	DISP	AN	01	0002
03	DATA-A	00012	000224	******	CMP	NUM	01	0002
02	GRP-TABLE1	00015	000244	******	DISP	AN	01	0004
03	TABLE-A	00016	000244	******	DISP	AN	01	0003
01	ITEM-B	00020	000264	******	DISP	AN	00	0028
02	GROUP-B	00021	000264	******	DISP	AN	01	0002
03	DATA-B	00022	000264	******	CMP	NUM	01	0002
02	GROUP-B1	00023	000304	******	DISP	AN	00	0012
03	TABLE-B	00024	000304	******	DISP	AN	01	0003

Group items containing multiple occurs clauses sometimes needlessly synchronize the second and subsequent occurs clauses.

SOLUTION:

The following required patch corrects the problem. The attached document describes the problem and corrective procedures necessitated by the patch.

1. Build the following correction file using an editor and name it:
   PHS2.COR

```
                .TITLE  PHS2
                .PSECT  PHS2,OVR
                .IDENT  /1A.36A/

BEGIN:  .=.+4276

                NOP
                JSR     R5,     PATCH1

                .=BEGIN + 4322

                NOP
                JSR     R5,     PATCH2

                .=BEGIN + 17060

PATCH1: BIS     #1,     @#BEGIN + 1426
                BIT     #2,     @#BEGIN + 1430
                BEQ     01$
                BIS     #200,   @#BEGIN + 1430
01$:    RTS     R5

PATCH2: BIT     #200,   @#BEGIN + 1430
                BNE     01$
                BIC     #202,   @#BEGIN + 1430
```

```
Ø1$:    CMPB    #1,     @#BEGIN + 1444
                RTS     R5
                .END
```

2. Assemble the correction file as follows:

```
PDS>MACRO/OBJECT:PHS2.PAT/LIST:PHS2.LST
---
```

```
FILE?  PDSR.COR
-----
```

3. Extract the old module as follows:

```
PDS> LIBRARIAN EXTR/OUT:CBIOT.OLD [11,45]CBLLIB.OLB PHS2
---
```

4. Run the patch utility to merge the old module and the correction:

```
PDS> PAT PHS2.OBJ=PHS2.OLD,PHS2.PAT
---
```

5. Replace the patched module in the library:

```
PDS> LIBRARIAN REPLACE [11,45]CBLLIB.OBL PHS2.OBJ/:CS:17127
---
```

6. Task build the compiler with the new object library using the command file [11,45]CBLBLD.

COBOL-11 V3.1
for RSTS/E V6C
COBOL USER'S GUIDE

Seq 40.7.1 N
1 of 1

KBREAD SUBROUTINE RETURNS AN ERROR NO. 31 (SPR 11-19139 BS)

KBREAD subroutine returns an error No.31 "Illegal byte count for I/O operation."

The COUNT field for KBREAD contains the number of characters to be read when the call is executed. After the subroutine is executed, COUNT contains the number of characters read. Insure that COUNT agrees with the MAXIMUM number of characters to be read prior to calling this subroutine.

FORTRAN IV V2.1 MAINTENANCE RELEASE (RB)

FORTRAN IV V2.1 is a maintenance release for RSTS/E and RT-11 systems. The primary goal of this release is enhanced product quality, which is reflected by the following major features:

- o a new, simplified installation procedure for use on RT-11 systems.
- o full support for stand-alone FORTRAN (SIMRT)
- o corrections to problems encountered in V2.04 that relate to in-line code generation
- o corrections to V2.04 problems with the OPEN/CLOSE statements

In addition, all other significant problems in Version 2.04 have been fixed. At this time, the only known restrictions are:

- o function definitions require statements of the form
  REAL FUNCTION F*4 (A)
  rather than the alternate form
  REAL *4 FUNCTION F (A)
- o ASC11 null characters cannot be output to a terminal.
- o SIMRT: the real-time clock must be disabled when running stand-alone FORTRAN programs from PROM.
- o RT-11 specific restrictions:
  - Restart of the FORTRAN compiler and FORTRAN programs does not operate correctly.
  - When CALL ASSIGN is used to request a file name under the F/B monitor, a CTRL/F must be typed before entering the file name.
- o RSTS/E specific restrictions:
  - An explicit terminal reference in a file name (e.g. KB2:) does not operate correctly; the users terminal KB: is used instead.
  - The DISPOSE = 'PRINT' or 'DELETE' parameters in the OPEN/CLOSE statements do not work; the file is always saved.

FORTRAN IV V2.1 for RSTS/E and RT-11 is now available from SDC. The ordering information below details the license and media options. Please refer to your sales representative for current prices.

RT-11 ORDERING INFORMATION

Single-use binary license, binaries and documentation with support services
QJ813-A_ media available are : DECtape; 9-TK Magtape; RK05, RL01, RK06, and RX01 disks.

Single-use binary license, binaries and documentation with no support services
QJ813-C_ media same as QJ813A_ above.

Single-use binary license only - no binaries, documentation or support services
QJ813-DZ

Single-use source license, sources - no documentation or support. Requires a supported binary license as a prerequisite.
QJ813-E_ media available are: 9-TK Magtape; RK05, RL01, and RK06 disks; microfiche.

Documentation kit only
QJ813-GZ

Out-of-warranty binary update option for V1C and V2 customers. Binaries and documentation only - no support.
QJ813-H_ media same as QJ813-A_ above.

Out-of warranty source update option for V1C and V2 customers. Source only - no documentation or support.
QJ813-N_ media available are 9-TK Magtape; RK05, RL01 and RK06 disks.

In-warranty binary update option for V1C and V2 customers. Binaries and documentation only - no support.
QJ813-W_ media same as QJ813-A_ above.

FORTRAN IV/RSTS/E V2.1
for RSTS/E V6C

RSTS/E ORDERING INFORMATION

Single-use binary license including binaries documentation and support services.
QR435-A_ media available are: 9-TK and 7-TK Magtape, RK05, RL01, RK06, and RK07 disks.

Single-use binary license including binaries, documentation with no support services.
QR435-C_ media same as QR435-A_ above.

Single-use binary license only - no binaries, documentation or support services.
QR435-DZ

Documentation kit only
QR435-GZ

Out-of-warranty binary update option for V1C and V2 customers. Binaries and documentation only - no support services.
QR435-H_ media same as QR435-A_ above.

In-warranty binary update option for V1C and V2 customers. Binaries and documentation only - no support servies.
QR435-W_ media same as QR435-A_ above.

RSTS/E V6C
CUMULATIVE INDEX
DECEMBER 1978

This is a complete listing of all articles for RSTS/E V6C and layered products. Missing sequence numbers may pertain to problems unique to other versions of the same product.

IMPORTANT!

The following numerical system has been grouped in logical order denoted by the first digit (X.X.X). The second digit (X.X.X.) refers to the subcomponent and the third digit (X.X.X) denotes the issue number or sequential order.

Retracted articles are indicated: RETRACTION.

Flags are currently being installed for all articles. The flags and definitions are as follows.

M = Mandatory patch. These are critical patches which each customer is required to install.

O = Optional patch. These articles are applicable only if the reported problems have occurred at the customer site or if they are unique to his operation.

R = Restriction. These problems are not patchable in released software. Restrictions are reviewed and corrected when possible as part of the normal release cycle.

N = Note. This information may be helpful to the user.

* = Articles appeared in RSTS/E Release Notes, December 1977 (AA-5246B-TC).

+ = Articles appeared in RSTS/E Software Dispatch Review, January 1978 (AA-5514B-TC).

** = Articles appeared in CTS-500 DIBOL-11 Release Notes June 1978 (AA-5504B-TC)

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BACFRM		
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QUE DOES NOT CHECK PRIVILEGE PROPERLY	14.4.3 M	Apr 78
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BATDEC		
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Component	Sequence	Mon/Yr
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DMSRAA		
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DIBOL-11/DECFORM V1

#Articles appeared in CTS-500 DIBOL Release Notes, July 1977 (DEC-11-LCDAA-A-D).

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BASIC-PLUS-2

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AN ATTEMPT TO USE A SUBSCRIPT OUT OF RANGE IN DEBUG WILL GIVE MEMORY MANAGEMENT ERRORS	27.5.2 M*	Dec 77
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UPDATE DOES NOT CORRECTLY SET RECORDSIZE	27.5.7 M	Oct 78
BP2COM OBJECT LIBRARY PATCHES		
POSSIBLE UNIBUS TIMEOUT FATAL ERRORS ON STRING EQUATES	27.6.1 M*	Dec 77
POSSIBLE UNIBUS TIMEOUT FATAL ERRORS ON PRINT-USINGS	27.6.2 M*	Dec 77
CLOSING A WRITE LOCKED OR HUNG DEVICE RESULTS IN A LOOP	27.6.3 M*	Dec 77
ERROR TRAPPING OUT OF STRING FUNCTION GIVES MEMORY MANAGEMENT VIOLATION	27.6.4 M*	Dec 77

Component	Sequence	Mon/Yr
LARGE TERMINAL WIDTHS PRODUCE FATAL ERRORS	27.6.5 M*	Dec 77
DEBUG MAY IGNORE BREAK IN USER FUNCTION	27.6.6 M	Jan 78
AN ATTEMPT TO USE A SUBSCRIPT OUT OF RANGE IN DEBUG WILL GIVE MEMORY MANAGEMENT ERRORS	27.6.7 M	Jan 78
UNQUOTED STRINGS OR "&" AT END OF DATA STATEMENTS CAUSE READ ERRORS	27.6.8 M	Jan 78
POSSIBLE BAD DATA IF VIRTUAL ARRAY READ CAUSES ERROR	27.6.9 M	Jan 78
PRINT USING IGNORES TRAILING ASTERISK	27.6.10 M	Jan 78
MEMORY MANAGEMENT VIOLATION ON MATRIX INVERSION	27.6.11 M	Jan 78
PRINT USING RETURNS ERROR INDICATOR FOR NEGATIVE NUMBERS	27.6.12 M	Jan 78
AN OPEN OF THE TERMINAL IGNORES ACTUAL WIDTH	27.6.13 M	Jan 78
NUM$ WITH SCALING CAUSES MEMORY ERRORS	27.6.14 M	Jan 78
VAL FUNCTION IGNORES SCALE FACTOR	27.6.15 M	Jan 78
RND DOES NOT RETURN TRULY RANDOM NUMBERS	27.6.16 M	Feb 78
INTEGER EXPONENTIATE MAY GIVE OVERFLOW ERROR	27.6.17 M	Feb 78
USE OF MODE A% CLAUSE IN OPEN CHANGES VALUE OF A%	27.6.18 M	Feb 78
FILE STRING SCAN (SYS(-10)) REPORTS ERRORS INCORRECTLY	27.6.19 M	Feb 78
RMS OPENS WITH SCALING MAY CAUSE ERRORS	27.6.20 M	Feb 78
INTEGER ARGUMENTS MAY GIVE MEMORY ERRORS	27.6.21 M	Feb 78
FORCING 'SHUTUP' SYS CALL TO CLOSE CHANNEL 15	27.6.22 M	Feb 78
'E' FORMAT WITH SCALING INPUTTED ERRONEOUSLY	27.6.23 M	Feb 78
CHAIN DROPS PRIVILEGES	27.6.24 M	Feb 78
ALLOWING 24 HOUR TIME OPTION	27.6.25 O	Mar 78
SCALED ARITHMETIC LOSES ACCURACY	27.6.26 M	Mar 78
CERTAIN UNTRAPPABLE ERRORS SHOULD NOT BE	27.6.27 M	Mar 78
KEYED GETS WITH STRING EXPRESSIONS GIVE ERRORS	27.6.28 M	Mar 78
SINGLE ALPHA CHARACTERS WRONGLY ACCEPTED AS NUMERIC	27.6.29 M	May 78
UNASSIGNED	27.6.30	XXX XX
NUM1$(SINGLE PRECISION) MAY GIVE STRANGE RESULTS	27.6.31 M	May 78
CHANNEL 15 NOT CLOSED ON ATTACH SYS CALL	27.6.32 M	May 78
XLATE FUNCTION DOES NOT WORK PROPERLY	27.6.33 M	Aug 78
RANDOMIZE DOES NOT WORK PROPERLY	27.6.34 M	Aug 78
THE THREAD MA1$ IS NOT IN THE RUN TIME SYSTEM	27.6.35 M	Sep 78
SIGN FUNCTION (SGN) NOT RETURNING CORRECT VALUES	27.6.36 M	Aug 78
UPDATE DOES NOT CORRECTLY SET RECORDSIZE	27.6.37 M	Nov 78
BASRMS OBJECT LIBRARY PATCHES		
SCRATCH STATEMENT PRODUCES UNIBUS TIMEOUT ERRORS	27.7.1 M*	Dec 77
FILE ACTIVITY AFTER AN INDEXED OPEN MAY PRODUCE CERTAIN RMS ERRORS	27.7.2 M*	Dec 77
SCQUENTIAL VARIABLE RECORDS WITH ODD LENGTHS CAUSE ERRORS	27.7.3 M	Jan 78

COBOL-11 V3

PACKAGE NOTES		
ACCEPT STATEMENT	28.1.1 N+	Jan 78
LISTING FILES	28.1.2 N+	Jan 78
PIP CANNOT PROCESS LISTING FILES	28.1.3 N+	Jan 78
PROBLEM LIST	28.1.4 N+	Jan 78
REDUCED CONTENTION	28.1.5 N	Mar 78
COMMENT AFTER COPY	28.1.6 R	Mar 78
COPY STATEMENT	28.1.7 R	Mar 78
LUN ASSIGNMENTS FROM MACRO	28.1.8 N	May 78
ENVIRONMENT DIVISION ERRORS	28.1.9 R	May 78
COMPILER		
ABORT WHEN READING 88 LEVEL ITEM	28.2.1 M	Feb 78
START WITH RELATIVE FILES	28.2.2 M	Feb 78
FINAL STATEMENT "EXIT PROGRAM"	28.2.3 R	Mar 78
ACCEPTING CBL PROG.CBL	28.2.4 R	Mar 78
FORMAT PROGRAMS	28.2.5 R	Mar 78
COPY STATEMENT/COMMENT LINE	28.2.6 R	Mar 78
"BLANK WHEN ZERO" CLAUSE	28.2.8 R	May 78
DEFINING TOO MANY SYMBOLS	28.2.9 R	Mar 78
CALL STATEMENT MAY TERMINATE	28.2.10 N	Apr 78
UNSTRING STATEMENT	28.2.11 N	Apr 78
LARGE PROGRAM ABORTS WITH "SYSTEM ERROR 003"	28.2.12 R	Dec 78
INVALID ERROR MESSAGE IS GENERATED BY THE COMPILER	28.2.13 N	Dec 78
OBJECT LIBRARY		
OVERLAY SEGMENTATION WITH SUBROUTINES	28.3.1 M	Feb 78
IMPROPER TEST OF SIGNED SUBORDINATE DATA ITEM	28.3.2 M	Feb 78
USE PROCEDURE FAILURE	28.3.3 M	Feb 78
ACCEPT OVERWRITES	28.3.4 R	Feb 78
MULTITERMINAL SUPPORT ROUTINE "KBREAD"	28.3.5 N	Feb 78

Component	Sequence	Mon/Yr
ODL		
BUILDING COBOL-11		
PROGRAM USING SORT	28.4.1 M+	Jan 78
	28.4.2 R	Apr 78
DOCUMENTATION		
PDP-11 COBOL USER'S GUIDE		
REWRITING RECORDS	28.7.1 N	Mar 78
RMS-11 V1.5		
PACKAGE NOTES		
GARBAGE IN BUFFER	29.1.1 N	May 78
CURRENT ODL OF CNVBLD.ODL WILL CAUSE STACK OVERFLOW	29.1.2 M	Sep 78
RMS11.RTS		
GLUN DIRECTIVE NOT CHECKING FOR UNASSIGNED LUNS	29.2.1 M	Jul 78
OVERLAID TASKS ABORT WHEN BUILT WITH UNITS=14	29.2.2 M	Aug 78
RMSLIB.OLB		
RMS-11 FILE SPECIFICATION	29.4.1 M	Aug 78
TWO OR MORE TASKS RUNNING AT DIFFERENT PRIORITY LEVELS	29.4.2 M	Oct 78
RMSUTL.OLB		
RESTORING LARGE FILES	29.6.1 M	Jul 78
ERROR OCCURRED WHEN USING RMS UTILITIES	29.6.2 N	Aug 78
RMS-11K V1.5		
PACKAGE NOTES		
RMS-11K SOFTWARE PERFORMANCE REPORTING SERVICES	29.11.1 N	Jul 78
RMS-11K MACRO PROGRAMS ENCOUNTERING AN ER$DME ERROR	29.11.2 N	Jul 78
RMSLIB.OLB		
RMS-11 FILE SPECIFICATION	29.14.1 M	Aug 78
IF (RML) OF A KEY IS GREATER THAN 127, IT IS SET INCORRECTLY	29.14.2 M	Aug 78
RMS-11 INDEXED FILE	29.14.3 M	Aug 78
UPDATE OPERATION IS PERFORMED ON A MULTI-KEY ISAM FILE	29.14.4 M	Sep 78
RMSUTL.OLB		
DFN MAY DEFAULT TO WRONG VALUES	29.16.1 M	Jul 78
INTERACTIVE DEFINE (DEF) UTILITY	29.16.2 M	Aug 78
CURRENT ODL OF CNVBLD.ODL WILL CAUSE STACK OVERFLOW	29.16.3 M	Nov 78
SORT-11 V2		
SORT UTILITY		
ERROR WITH SORT SUBROUTINES	30.2.1 M	Aug 78
ALTSEQ LINE IN SPECIFICATION FILE IS NOT ACCEPTED	30.2.2 M	Nov 78
RSTS/E DECNET/E PACKAGE		
UTILITIES		
NCP		
NCP ALLOWS INVALID NODE ADDRESS IN DEFINE NODE COMMAND	31.2.1 M	Jul 78
NCU		
NCU DOES NOT CORRECTLY HANDLE DETECTION OF ANOTHER NCU	31.3.1 M	Jun 78
NCU DOES NOT CORRECTLY SET ITS RUN BURST AND PRIORITY	31.3.2 M	Oct 78
TLK		
TLK DOES NOT CHECK TO SEE IF LSN JOB NUMBER EXISTS	31.4.1 M	Jul 78
NCROOT		
NODE NAMES OF LESS THAN 6 CHARACTERS NOT ACCEPTED	31.8.1 M	Apr 78
NETCPY DOES NOT ALLOW COPIES BETWEEN MM: AND MT:	31.8.2 M	Jul 78
NFT		
NFT PRINTS INCORRECT ERROR CODES ON FILE DELETIONS	31.10.1 N	Apr 78
NETWORK TRANSFERS OF .BAS FILES	31.10.2 N	Apr 78
NETWORK TRANSFERS OF CONTIGUOUS FILES	31.10.3 N	Apr 78

Component	Sequence	Mon/Yr
CREATE NFT/FAL OBJECT LIBRARY FO?R PATCHING	31.10.4 M	Jul 78
RSTS/E-RT11 DIFFERENT BLOCK NUMBER FOR FIRST BLOCK OF FILE	31.10.5 M	Jul 78
INCORRECT DEFAULT FOR MAXIMUM RECORD SIZE ATTRIBUTE	31.10.6 M	Aug 78
FAL		
RSTS/E-RT11 DIFFERENT BLOCK NUMBER FOR FIRST BLOCK OF FILE	31.11.1 M	Jul 78
RPG II V8.02		
PACKAGE NOTES		
RPG PATCH FILES IN RSTS/E PATCH KIT	32.1.1 N	Jul 78
INDEX SEQUENTIAL FILE ERROR	32.1.2 O	Nov 78
COMPILER		
COMPILER RESTRICTION	32.2.1 R	Mar 78
MOVEL AND MOVE ADDRESSING FAILURES	32.2.2 M	Nov 78
NUMBER OF FILES LIMIT INCORRECT	32.2.3 M	Nov 78
OUTPUT RECORD AND/OR FAILURE	32.2.4 M	Nov 78
OTS		
SEVERAL OTS PATCHES	32.3.1 M	Nov 78
HALT MESSAGE ERROR SEVERITY	32.3.2 O	Nov 78
OVERLAY STRUCTURE DEGRADES PERFORMANCE	32.3.3 M	Nov 78
OTS ERROR REPORTING PROBLEMS	32.3.4 M	Nov 78
PAGING FOR NON-STANDARD LENGTH FORMS	32.3.5 O	Nov 78
LINE COUNTING WITH OVERPRINT	32.3.6 M	Nov 78
PLUS-ZERO OVERPUNCH PROBLEM	32.3.7 M	Nov 78
INDICATOR HANDLING PROBLEMS	32.3.8 M	Nov 78
RELATIVE FILE PROBLEMS	32.3.9 M	Nov 78
MOVE ARRAY PROBLEM	32.3.10 M	Nov 78
EXTRA LINE STARTS PRINTR FILES	32.3.11 M	Nov 78
MULTI-USER FILE ACCESS PROBLEM	32.3.12 M	Nov 78
MULTIPLE PRE-EXECUTION TABLES	32.3.13 M	Nov 78
CLOSING RMS FILES ON RSX SYSTEMS	32.3.14 M	Dec 78
SENSING OVERFLOW WHEN TOTAL TIME OUTPUT ONLY	32.3.15 M	Dec 78
RPGFMS		
LEADING ZEROES IN UNPACK DECIMAL	32.4.1 O	Nov 78
RPGASN		
ALLOCATE AND APPEND SWITCHES	32.5.1 M	Nov 78
$$X WITH NO EXTERNAL INDICATORS	32.5.2 R	Sep 78
CHANGING ENTRIES WHICH USE /TASK	32.5.3 M	Nov 78
RPGDCV		
CONVERT NEGATIVE PACKED DATA	32.6.1 M	Nov 78
RPGDMP		
ILLEGAL VARIABLE NAME IN BASIC-PLUS-2 SOURCE	32.7.1 M	Dec 78
APL-11 V1		
PACKAGE NOTES		
ACCEPTING 8-BIT ASCII	33.1.1 N+	Jan 78
APL.RTS RUN-TIME SYSTEM PATCHES		
"SYSTEM ERROR"S GENERATED BY NULL LINE ELEMENTS	33.2.1 M+	Jan 78
INTERNAL MEMORY ALLOCATION PROBLEMS	33.2.2 M+	Jan 78
ERRONEOUS "DEFINITION ERROR" DURING FUNCTION EDITING	33.2.3 M+	Jan 78
SYSTEM ERROR ON PARAMETER RETURN	33.2.4 M	May 78
DOCUMENTATION		
ERROR IN THE APL-11 PROGRAMMER'S REFERENCE MANUAL	33.3.1 N	Jun 78
DATATRIEVE-11 V1		
DIVISION WITH NUMERATOR OF 0	34.1.1 M	Mar 78
INTERNAL ERROR	34.1.2 M	Mar 78
DYNAMIC MEMORY	34.1.3 M	Mar 78
INTERNAL BLOCKS	34.1.4 M	Mar 78
EXHAUSTED SPACE	34.1.5 M	Mar 78

Component	Sequence	Mon/Yr
CERTAIN ASSIGNMENTS MAY CAUSE INTERNAL ERROR	34.1.6 M	Mar 78
INTERNAL ERRORS	34.1.7 M	May 78
THE DATATRIEVE SEQUENCE FIND...; SELECT; PRINT ALL; MODIFY...; FAILS	34.1.8 M	May 78
SPACE IS EXHAUSTED	34.1.9 M	May 78
PRECISION ERRORS	34.1.10 M	May 78
SORT FAILS WITH THE MESSAGE "SORT OUTPUT OPEN FAILED"	34.1.11 M	May 78
CORRUPTED DATA DICTIONARY	34.1.12 M	Jun 78
RECOVERY FROM A CORRUPTED DATA DICTIONARY ELEMENT	34.1.13 M	Jun 78
"AT BOTTOM" OF COMMAND	34.1.14 R	Jul 78
DATATRIEVE REPORT WRITER FEATURE	34.1.15 R	Jul 78
SCALE FACTORS	34.1.16 M	Aug 78
FLOATING POINT DIVISION	34.1.17 M	Aug 78
DATATRIEVE ALGORITHM FOR FIXED POINT DIVISION	34.1.18 M	Aug 78
REPORT WRITER	34.1.19 M	Aug 78
ARVLCP: EXPECTED VL BLOCK	34.1.20 R	Dec 78
WISE V1		
UPDATE		
AZX INDEX EXISTENCE FLAG	35.2.1 M	May 78
PROTECTION OF VARIABLE-LENGTH FIELDS	35.2.2 M	May 78
CHANGING CONTENTS OF PROTECTED DATA FIELDS	35.2.3 M	May 78
PROTECTION OF VARIABLE LENGTH FIELDS	35.2.4 M	Aug 78
SKLTON		
FNQ9% FUNCTION	35.3.1 M	May 78
REQUES		
REQ3 DECODING PROBLEM	35.4.1 M	May 78
FIELDNAME ERROR	35.4.2 M	Jun 78
IMPROPER USE OF THE LABEL OPTION	35.4.3 R	Oct 78
RGRADE		
REGRADE SERIES OF PROGRAMS DOES NOT CALCULATE TOTCRED	35.5.1 M	Jun 78
RGRADE SERIES OF PROGRAMS	35.5.2 M	Aug 78
REGSTR		
DIMENSIONAL ARRAYS	35.6.1 M	Aug 78
NETFIL		
CREATING UPX	35.7.1 M	Aug 78
DIBOL-11/DECFORM V4D		
PACKAGE NOTES		
CTRL/C TRAPPING	36.1.1 N**	Jun 78
SYSTEM CONTROL PROGRAMS	36.1.2 N**	Jun 78
IMPROPER USE OF RUNJB	36.1.3 N**	Jun 78
DATA TYPE COMPATIBILITY	36.1.4 N**	
DECFORM DATA ENTRY FOR PROGRAMS	36.1.5 N**	Jun 78
ZONED ASCII ARITHMETIC FOR BP2COM V1.50	36.1.6 O	Dec 78
ZONED ASCII ARITHMETIC FOR BASIC2 V1.50	36.1.7 O	Dec 78
BUILD PROCEDURES		
DBUILD SUPERCESSION	36.3.1 N**	Jun 78
DICOMP SUPERCESSION	36.3.2 N**	Jun 78
DIBOLR		
RSTAT VALUES	36.5.1 N**	Jun 78
RMS CARRIAGE CONTROL ATTRIBUTE	36.5.2 N**	Jun 78
PROC NUMBER	36.5.3 N**	Jun 78
OPTIONAL PATCH TO EXPAND CALL/RETURN LIMIT (R6 STACK SPACE)	36.5.4 O**	Jun 78
DECFORM		
FOCOMR.MLB DECFORM LIBRARY	36.6.1 N**	Jun 78
NO RMS SEQUENTIAL FILE UPDATES	36.6.2 N**	Jun 78
FILE VALIDATION RECORD SIZE ERROR	36.6.3 N**	Jun 78
RMS NOTES		
RMS VERSION IS 1.5	36.7.1 N**	Jun 78
OTHER RTS's AND ODL's	36.7.2 N**	Jun 78
NO KEY SWITCHING	36.7.3 N**	Jun 78

Component	Sequence	Mon/Yr
CTS-500 DIBOL-11 USER'S GUIDE		
CLARIFICATION OF SAMPLE ODL FILE	36.9.1 M	Dec 78
DECAL V2		
QUIZ		
QUIZ01 DOES NOT INTERPRET AUTHOR VARIABLES CORRECTLY	37.2.1 M	Sep 78
CREATE		
END-OF-BLOCK INDICATOR	37.3.1 M	Aug 78
CREATE AND LEDIT1	37.3.2 M	Sep 78
SORT1		
SORT1 GENERATES A FATAL SORT ERROR	37.4.1 M	Sep 78
BASIC-PLUS-2 V1.5		
BASIC2 COMPILER PATCHES		
SOME MIXED MODE ASSIGNMENT STATEMENTS GENERATE NO ERRORS	38.2.1 M	Nov 78
THE COMPILER EXPANSION OF A SYSTEM WIDE LOGICAL DEVICE NAME IS INCORRECT	38.2.2 M	Nov 78
OPTIMIZATION OF CONSTANTS CAN CAUSE ERRORS	38.2.4 M	Nov 78
BASIC2 RUN-TIME SYSTEM PATCHES		
NAME AS STATEMENT DOES NOT WORK PROPERLY, AND MAGTAPE (BACKSPACE) FUNCTION DOES NOT WORK PROPERLY	38.3.1 M	Nov 78
UNLOCK STATEMENT DOES NOT WORK PROPERLY	38.3.2 M	Oct 78
DEBUG LET STATEMENTS DO NOT WORK PROPERLY	38.3.3 M	Oct 78
UNASSIGNED	38.3.4	XXX XX
A NEGATIVE INDEX IN AN ON GOTO STATEMENT CAN CAUSE A PROGRAM CRASH	38.3.5 M	Nov 78
SGN FUNCTION DOES NOT WORK PROPERLY UNDER DOUBLE PRECISION	38.3.6 M	Nov 78
A NULL STRING PASSED TO A SUBPROGRAM WILL NOT BE UPDATABLE	38.3.7 M	Nov 78
MODE 8 PROCESSING DOES NOT WORK PROPERLY	38.3.8 M	Nov 78
NAME AS STATEMENT DOES NOT WORK PROPERLY, AND MAGTAPE (BACKSPACE) FUNCTION DOES NOT WORK PROPERLY	38.3.9 M	Nov 78
BP2COM RUN-TIME SYSTEM PATCHES		
SYSTEM SECURITY EXPOSURE WITH BASIC-PLUS-2 KEYBOARD MONITOR	38.4.1 M	Dec 78
A NEGATIVE INDEX IN AN ON GOTO STATEMENT CAN CAUSE A PROGRAM CRASH	38.4.2 M	Nov 78
A NULL STRING PASSED TO A SUBPROGRAM WILL NOT BE UPDATABLE	38.4.3 M	Nov 78
BASIC2 OBJECT LIBRARY PATCHES		
DEBUG LET STATEMENTS DO NOT WORK PROPERLY	38.5.1 M	Oct 78
BP2COM OBJECT LIBRARY PATCHES		
NAME AS STATEMENT DOES NOT WORK PROPERLY, AND MAGTAPE (BACKSPACE) FUNCTION DOES NOT WORK PROPERLY	38.6.1 M	Oct 78
UNLOCK STATEMENT DOES NOT WORK PROPERLY	38.6.2 M	Oct 78
DEBUG LET STATEMENTS DO NOT WORK PROPERLY	38.6.3 M	Oct 78
UNASSIGNED	38.6.4	XXX XX
A NEGATIVE INDEX IN AN ON GOTO STATEMENT CAN CAUSE A PROGRAM CRASH	38.6.5 M	Nov 78
SGN FUNCTION DOES NOT WORK PROPERLY UNDER DOUBLE PRECISION	38.6.6 M	Nov 78
A NULL STRING PASSED TO A SUBPROGRAM WILL NOT BE UPDATABLE	38.6.7 M	Nov 78
MODE 8 PROCESSING DOES NOT WORK PROPERLY	38.6.8 M	Nov 78
BASRMS OBJECT LIBRARY PATCHES		
WRITING PAST PHYSICAL END OF MAGTAPE IS NOW TRAPPABLE	38.7.1 M	Oct 78
WRITING PAST PHYSICAL END OF MAGTAPE IS NOW TRAPPABLE	38.7.2 M	Nov 78
DIBOL-11/DECFORM V4C		
PACKAGE NOTES		
CTRL/C TRAPPING	39.1.1 N**	Jun 78
SYSTEM CONTROL PROGRAMS	39.1.2 N**	Jun 78
IMPROPER USE OF RUNJB	39.1.3 N**	Jun 78
DATA TYPE COMPATIBILITY	39.1.4 N**	Jun 78
DECFORM DATA ENTRY FOR PROGRAMS	39.1.5 N**	Jun 78
ZONED ASCII ARITHMETIC FOR BP2COM V1.50	39.1.6 O	Dec 78

Component	Sequence	Mon/Yr
ZONED ASCII ARITHMETIC FOR BASIC2 V1.50	39.1.7 O	Dec 78
COBOL V3.1		
BUILD PROCEDURES		
DBUILD SUPERCESSION	39.3.1 N**	Jun 78
DICOMP SUPERCESSION	39.3.2 N**	JUN 78
DIBOL		
OPTIONAL PATCH TO EXPAND CALL/RETURN LIMIT (R6 STACK SPACE)	39.5.1 O**	Jun 78
DECFORM		
FOCOMP.MLB DECFORM LIBRARY	39.6.1 N**	Jun 78
COBOL-11 V3.1		
COMPILER		
INVALID ERROR MESSAGE IS GENERATED BY THE COMPILER	40.2.1 N	Dec 78
MULTIPLE OCCURS CLAUSES	40.2.2 M	Dec 78
COBOL USER'S GUIDE		
KBREAD SUBROUTINE RETURNS AN ERROR NO. 31	40.7.1 N	Dec 78
FORTRAN IV/RSTS/E V2.1		
FORTRAN IV V2.1 MAINTENANCE RELEASE	41.1.1 N	Dec 78
RPG-11 V7.06		
RPG II V7.06 CAN NOT BE INSTALLED ON RSTS/E V06C-03	01 N*	Dec 77

DECUS SPECIAL INTEREST GROUPS

A DECUS Special Interest Group (SIG) is an activity whereby members of the DIGITAL Equipment Computer Users Society who share common interests in a particular field, join together to promote the interchange of information. Specialization may be in application areas such as education or industry, specific software systems such as OS/8 and RSX-11, or a specific mainframe such as the DECsystem-10/20.

SIG members derive numerous benefits from communicating with others who share specialized interests and who may wish to share their experiences. SIG s sponsor business meetings, tutorials, and workshops at the various chapter symposia which fulfill the two-fold purpose of fostering communication among users and between users and DIGITAL. Channeled communication provides DIGITAL and the users with insight into the direction of future developments. SIG s provide direct feedback to DIGITAL's in-house activities and have thereby made substantial contributions to OS/8, RSX-11, RSTS and TOPS-10.

User submitted articles, minutes of local meetings, and letters comprise the major portion of the individual SIG newsletters. Suggestions, hints, bug fixes, program plans, or questions of a non-commercial nature are suitable material for SIG newsletters.

SIG members are encouraged to make presentations at the SIG sessions held during DECUS Symposia.

The semi-annual U.S. Symposia sessions are organized by special interest areas. Submissions received from the user community are reviewed by symposia committee members from the special interest groups for appropriate placement on the agenda.

Special Interest Group participation in the review of programs submitted to the DECUS Program Library provides an opportunity to improve the quality and utility of programs available to you and to fellow users.

DIGITAL standards are issued to DECUS members for review and on the theory and philosophy of the standards. DECUS is a voting member of ANSI X3. Users are encouraged to register their areas of expertise with DECUS and assist with reviewing standards. SIG s often play a role in this process.

Below is a list of U.S. based Special Interest Groups within DECUS.

If you would like information regarding membership in any of the Special Interest Groups, contact DECUS U.S. Chapter, 129 Parker Street, PK3-1/E55, Maynard, Massachusetts 01754 or one of the other DECUS Chapter offices in Kanata, Sidney or Geneva.

NETSIG—Networks Special Interest Group
RSTS SIG—RSTS and RSTS/E Special Interest Group
SIGIG—Special Interest Group on Interactive Graphics
ESIG—Engineering Applications Special Interest Group
SIG-18—18-Bit Users Special Interest Group
12-Bit SIG—12-Bit User Special Interest Group
RSX-11/IAS SIG
RT-11 SIG
EDUSIG—Educational Users Special Interest Group
DEBUG—Digital Equipment Business Users Group
MUSIG—Mumps Special Interest Group
PASCAL SIG
DBMS SIG
TECO SIG
LSI-11 SIG
FOCAL SIG
STANDARDS SIG

DIGITAL EQUIPMENT COMPUTER USERS SOCIETY

RSTS-11 Special Interest Group

A Special Interest Group (SIG), as part of DECUS activities, has been formed to serve users of RSTS-11.

The organization of the SIG consists of a SIG Chairman, who will also act as the editor of any forthcoming newsletter, along with a DEC liaison and a SIG Coordinator. The DECUS office will handle the mailing list and circulation of the SIG newsletter. Submissions to the newsletter and other communications can be sent to the following address:

RSTS-11 Special Interest Group
c/o DECUS Office
One Iron Way - MR2-3/E55
Marlboro, MA 01752

SIG's activities encompass the following:

1. Preparation of a SIG newsletter (user submissions are strongly encouraged).
2. Exchange of user written programs. This exchange could include common interest BASIC-PLUS programs such as games, system accounting programs, and sort programs.
3. Establishment of communications with the DECUS staff to obtain for SIG members early information on RSTS-11 related additions to the DECUS Library. These communications will also serve to provide prompt testing of such submissions.
4. Establishment of user input to appropriate groups within DEC, so that they will receive user feedback on any additions or needed changes to RSTS-11. Additionally, respective SIG members may receive early warning from DEC about RSTS-11 changes.
5. Establishment of SIG maintained files of RSTS-11 errors and error solutions, where they exist.
6. Establishment of RSTS-11 "Welcome Wagon" type service to aid new users during system start-up.

If you wish to become a member of the RSTS-11 SIG, please fill out the form below and return it to the DECUS Office. (Please type or print.)

Are you a DECUS Member? _____ DECUS Membership Number _____

NAME _____

AFFILIATION _____

ADDRESS _____

CITY _____ STATE _____ ZIP CODE _____

TELEPHONE NUMBER _____

Are you registered with DEC as an RSTS-11 user? _____

Version Number: _____

SOFTWARE PROBLEMS OR ENHANCEMENTS

Questions, problems, and enhancements to DIGITAL software should be reported on a Software Performance Report (SPR) form and mailed to the SPR Center at one of the following DIGITAL Offices: (SPR forms are available from the SPR Center).

AREAS COVERED	SPR CENTER
United States, remainder of Far East, Middle East, Africa Latin America	Administrative Services Group, SWS P.O.Box F Maynard MA 01754
Canada	Digital Equipment Canada P.O.Box 11500 Kanata Canada K2H 8K8 Ontario
United Kingdom	Digital Equipment Corp., LTD Fountain House Butts Centre RG1 7QN Reading England
Australia-Melbourne	Digital Equipment Aust. Pty., LTD 60 Park Street South Melbourne Victoria Australia 3205
Australia-Sydney	Digital Equipment Aust. Pty., LTD 123 125 Willoughby Road P.O.Box 491 Crows Nest NSW Australia 2065
Brazil	Digital Equipment Comercio Ind Rua Batatais 429 Esq AL Campin 01423 Jardim Paulista Sao Paulo 0100 Brazil
Caribbean	De Latin America P.O.Box 11038 Fernando Juncos Sta. Santurce PR 00910
France	Digital Equipment Corp., LTD. Centre Silic Cidex L225 18 Rue Saarinen 94533 Rungis France

AREAS COVERED	SPR CENTER
Italy	Digital Equipment SPA Viale Fulvio Testi 117 20092 Cinisillo Balsamo Italy
Japan	Digital Equipment Corp., INTL 3rd Floor Kowa Building 8-7 Sanban Cho Chiyoda Ku Tokyo 102 Japan
New Zealand	Digital Equipment Corp., LTD Challenge House 3 Wolfe Street P.O.Box 2471 Auckland New Zealand 10010
Belgium, Holland	Digital Equipment BV Kaap Horndreef 38 3563 AV Utrecht Netherlands
Denmark, Finland, Norway, Sweden	Digital Equipment Corp., AB Englundavaegen 73 TR 171 41 Solna Sweden
Switzerland, Spain, Greece, Romania, Portugal, Bulgaria Yugoslavia	Digital Equipment Corp., SA 20 Quai Ernest Ansermet Boite Postale 23 CH 1211 Geneva Switzerland
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